AECOM

Submitted to:
BFI Waste Systems of North America, LLC
Hanover Park, IL

Submitted by:
AECOM
Vernon Hills, IL 60061
60139758
November 2009

Greenbrook School Combustible Gas Nature and Extent Characterization Mallard Lake Landfill IEPA Site No. 0438010004

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November 24, 2009

Mr. Steven J. Faryan
On-Scene Coordinator
EPA Region 5
77 West Jackson Boulevard
Chicago, IL 60604-3590

Subject: Greenbrook School Area Report, Mallard Lake Landfill - AECOM Project 60139758

Dear Mr. Faryan:

Attached please find one original and one copy of the Greenbrook School Combustible Gas Nature and Extent Characterization. This report was prepared on behalf of BFI Waste Systems of North America, LLC, and is submitted as discussed at recent site meetings. The operational data and monitoring data for this area has been submitted at site status meetings.

If you have any questions or comments on the attached report, please contact Matt Weiss or Michael Ruetten.

Sincerely,

Matthew D. Weiss
Staff Hydrogeologist

Michael G. Ruetten
Principal Engineer

cc: Thomas Rivera, IEPA
Donna Twickler, USEPA
Jim Hizeroth, BFI
Eric Ballenger, Allied Waste
Joe Benedict, Forest Preserve District of DuPage County
Om Patel, Westin Solutions
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1.0 Introduction

1.1 Background Information

BFI Waste Systems LLC (BFI) and the Forest Preserve District of DuPage County (FPDDC) entered into an Administrative Order with the U. S. Environmental Protection Agency (USEPA) to investigate and remediate gas migration from the Mallard Lake Landfill. The extent of the gas was delineated along the south and west sides of the landfill and reports have been submitted to USEPA and Illinois Environmental Protection Agency (IEPA) which detail the findings of the gas extent investigations and provide the proposed corrective action strategy (AECOM September 2008 and April 2009). As detailed in the Nature and Extent Report (September 2008) and in the Comprehensive Corrective Action Plan (April 2009), the results of the historical monitoring suggest that the landfill gas migration from the Mallard Lake Landfill occurs within the W1/W2 intra till sand unit at depths typically ranging between 28 to 60 feet below grade. No combustible gas associated with the landfill gas migration has been detected in any of the more than 250 residences which have been screened since the investigation was initiated in November 2007.

Corrective action efforts have been implemented along the west, south and east sides of the Mallard Lake Landfill to address the migration. In addition, significant repairs and improvements have been made to the existing internal gas management system in order to improve the gas collection system performance. The 2008 gas management system repair and maintenance efforts are documented in the Significant Permit Modification Application Quality Assurance documentation submitted to IEPA (Refer to Application Log 2008-504, CQM Inc, December 23, 2008). The offsite and onsite gas extraction wells, combined with the resumption of operations at several gas extraction wells located within the landfill have resulted in a marked reduction in the volume and concentrations of the trapped gas. For instance, based on monitoring results collected since the beginning of the year, the trapped gas previously reported along the northeast side of the Mallard Lake Landfill at probes GPT-08, GPT-10S and GP-Is has been removed. Continuing efforts are underway in cooperation with USEPA and IEPA to remove the remaining gas trapped in the W1/W2 granular unit. The primary areas of trapped gas appear to remain in isolated pockets along the south and west sides of the landfill.

This report provides a discussion of the nature and extent of the combustible gas migration in the vicinity of the Greenbrook School which is located more than 1300 ft northeast of the Mallard Lake Landfill (Refer to Figure 1). The investigation was conducted pursuant to the project scope of work presented in the USEPA approved work plans dated December 5, 2008.

The presence of combustible gas was identified in the area bordering the school property in June 2008, when probe ML-06D, located approximately 300 ft west of Greenbrook School, indicated the presence of combustible gas at depths approximately 48 to 53 ft below ground surface (bgs). The methane exceedances at probe ML-06D were reported to the IEPA and USEPA on June 27, 2009. Probe ML-06D was installed in February 2008 but did not initially indicate the presence of methane. The methane concentrations at this probe appeared to increase during the late spring and early summer of 2008, after several rounds of monitoring had been conducted. This suggests that the combustible gas concentrations at ML-06D increased as a function of repeated gas monitoring of the probe suggesting that negative pressures caused by the monitoring rounds had induced the gas to collect at the probe.

Samples of the gas from probe ML-06D were analyzed and were found to contain trace levels of volatile organic compounds (VOCs) in addition to methane. This suggested that the methane was not naturally occurring drift gas (i.e., gas from the soil) associated with the decomposition of organic matter. However, the source of the combustible gas was unclear since the sanitary sewer vent located less than 100 ft north of ML-06D contained a similar combination of methane and VOCs (Refer to Figure 1 for map depicting location of sanitary sewer vent). Additional gas monitoring probes were installed in the area to help determine the vertical and lateral extent of the gas.

The results of the gas extent monitoring along the western and southern boundaries of the school suggest that the combustible gas exists within a thin granular seam which is isolated between thick clay till layers. This granular unit is frequently referred to as the W1/W2 unit. Because the combustible gas did not extend to shallow depths in the vicinity of the sewer, it was determined that the gas was unlikely to be associated with the methane or the VOCs detected in the sewer vent. Geoprobe, drilling and Cone Penetrometer Testing (CPT) investigations conducted in the in the northern portion of the Mallard Lake Forest Preserve indicate that the combustible gas migration was primarily confined within the W1/W2 sand layer at a depth of approximately 20 to 40 ft below grade. Gas was also detected in a separate silty layer which appears to correlate to the top of the W3 layer at a depth approximately 10 to 15 feet below the W1/W2 Unit.

As a precaution, AECOM, Inc (AECOM) and the USEPA have on four previous occasions conducted a screening of the school to evaluate whether methane gas was present in the building. No detectable levels of gas were observed during any of the four screenings. Similarly, AECOM was informed that custodial staff at the school utilize combustible gas detection equipment to test commercial gas line connections, etc. Reportedly, the custodial staff has not identified any elevated combustible gas concentrations within the building. Because the building is constructed as a slab on grade foundation, without basements or sumps, the potential for gas to infiltrate the structure is minimized. Two gas detectors, which provide an alarm if methane concentrations reach 25% of the lower explosive limit (LEL), have been installed at the school. AECOM is not aware of either of these units having been activated.

Pursuant to the request of Keeneyville School District 20, the school property characterization investigations were not undertaken until the school spring break recess March 30 through April 4, 2009, in order to minimize any potential disruption of school activities. These investigation activities are discussed in additional detail in Sections 2.0 and 3.0.

1.2 Purpose of the Investigation

The purpose of this investigation was to characterize the extent of gas migration and to evaluate the potential risks associated with combustible gas migration in the vicinity of the Greenbrook School. The investigation was broken into phases which allowed the potential migration in the vicinity of the school to be first characterized by the installation of subsurface monitoring probes and then by subslab gas sampling to assess the potential for vertical gas migration toward the school. The final phase of investigation focused on the collection of gas samples from within the school to assess the potential presence of combustible gas and/or VOCs within the structure. These characterization activities were undertaken to assess whether any potential existed for human contact with the gas migration. Due to the proximity of the trapped gas to the school, corrective action efforts were implemented to abate the gas migration. However, this report focuses solely on the characterization of the trapped gas in the vicinity of Greenbrook School. AECOM anticipates presenting the results of corrective action measures under separate cover.

1.3 Report Organization

In addition to the introduction provided in Section 1.0, this report is organized into the following sections:

Section 2.0 provides a discussion of investigation methods;

Section 3.0 provides a discussion of the results of the investigations;

Section 4.0 provides a Summary and Conclusions.

2.0 Investigation Methods

The scope of work for the investigation of the school property was initially developed by AECOM based on the understanding of the nature and extent of the combustible gas migration from the probes installed in the Mallard Lake Forest Preserve along the south and western property boundaries of the school. The investigation scope was reviewed by USEPA and the Illinois EPA and was modified to incorporate their comments and/or recommendations. The project scope of work was divided into the following elements:

- School Evaluation/Screening and Combustible Gas Detector Installation; and
- Nature and Extent Characterization;

Tasks which were implemented to evaluate the nature and extent of combustible gas migration are summarized in the subsequent sections. The investigations were conducted in a phased manner, such that the scope could be quickly expanded or adjusted as necessary based on real time data collected during the initial CPT investigation, the probe installation or subsequent probe monitoring phases of the investigation.

2.1 CPT Investigation at Greenbrook School

Prior to commencing the investigations at the school, the methane monitoring conducted at intermediate depth monitoring probes located along the school's west property line (i.e., ML-08i, ML-09i and ML-10i) indicated methane concentrations ranging between 72.3% and 82.2% by volume (Refer to Table 2. Due to the proximity of probes ML-08i, ML-09i and ML-10i (located along the east side of the Forest Preserve property) to the Greenbrook School, it was determined that the characterization of the gas migration extent must be extended to the school property. Prior to installing any probes on the school property, a meeting was held on January 29, 2009 with school officials to coordinate the access to the school property and to discuss probe locations, construction scheduling and safety precautions associated with school children. The school custodial staff informed BFI and AECOM personnel that no utility location maps were available for the parking lot and school perimeter areas. As such, it was suggested that a private locating company be engaged to determine the locations of subsurface utilities in the vicinity of the school.

The initial phase of the Greenbrook School investigation included the installation of gas monitoring probes in the area along the west and south sides of the school, in close proximity to areas where methane had previously been detected. The locations of probes (ML-22, ML-24, ML-25, ML-28, ML-29, ML-30 and ML-31) are shown on the attached Figure 1. CPT probe locations (ML-26 and ML-27) were conducted along the bike path and baseball fields northwest of the school to characterize the potential northern extent of the gas migration area. Based on the initial combustible gas detection at probe ML-29 near the southwest corner of the school, the investigation was expanded to the east and north of the school in order to assess whether the gas had migrated beneath the school. Additionally, vertically nested probes (ML-29S, ML-25i, ML-25S and ML-25D) were also installed to assess the vertical extent of gas migration in the vicinity of the school.

2.1.1 Utility Clearance and Access Considerations

The Joint Utility Locating Information for Excavators (JULIE) service and the Greenbrook School District officials were contacted about the presence of any subsurface utilities which might be located within the investigation area. Pursuant to Illinois requirements, 72 hours notice was provided to JULIE prior to initiating the CPT testing program. Where possible, the known utility locations were marked out within the school property. As discussed in the work plans, the CPT probe installation investigation was structured so that it could be completed around the school in two phases starting on the west and south sides of school and moving to the north and east sides of the school as appropriate based on sequential probe findings.

Because JULIE and/or the School were unable provide adequate documentation of the location of subsurface sewers, electrical lines, natural gas, water etc., a geophysical survey was conducted on March 24, 2009 to verify that the proposed probe locations were clear of subsurface utilities. The survey was conducted using a RD4000 underground cable locator and a Ground Penetrating Radar (GPR). The survey was conducted within an approximately 10 foot diameter area around each of the proposed probe locations. The locations of apparent utilities within this area were marked out and in some cases the proposed boring location was offset slightly to avoid the utilities.

The investigations were conducted in a manner that emphasizes both worker and public safety. Due to the potential presence of physical (mechanical or vehicle) hazards such as moving vehicles, steps were taken to restrict public access to the work area during the times when the investigation was in progress. These steps included completing the investigations during the Spring Break recess, erecting partial barricades around the area surrounding the CPT drilling rig to warn bystanders of the potential dangers associated with the equipment. Additionally, due to the weight of the drill rig and extremely wet weather conditions, it was necessary to utilize plywood sheeting at many of the locations to improve the access to soft ground areas and distribute the drill rig weight. Curb crossings were conducted with the use of ramps.

2.1.2 Cone Penetrometer Testing

The investigation was completed utilizing a Mobile B-61 drilling rig equipped with cone penetrometer testing (CPT) equipment operated off the drill rig hydraulic systems. As discussed in the Nature and Extent Report which was finalized in September 2008, the CPT provides an efficient method for characterizing the nature and extent of combustible gas migration and also provides detailed stratigraphic data which enable the gas migration pathways (i.e. sand seams, etc.) to be identified on a real time basis while the penetrometer sounding is being advanced. Similar characterization programs have been successfully completed along the west and south sides of the landfill. Due to the depth (approximately 45 to 50 ft) and the stiffness of the glacial tills at the site, CPT rigs have demonstrated a decided advantage (compared to geoprobe rigs) in their ability to hydraulically penetrate the site soils to the desired probe completion depths. Because the CPT rig generates tip pressures up to 2 million pounds per square foot they have previously been utilized to successfully penetrate through the W1/W2 sand layer (at depths ranging up to 70 ft below ground surface (bgs) in the areas surrounding the landfill.

The CPT tool was utilized to provide a continuous read out of electrical conductivity and pore pressure as the sounding was advanced (Refer to Appendix A for the CPT Logs). This provided real time data to evaluate soil stratigraphy, moisture content, and whether landfill gas was present. In some instances, the CPT pore pressure probe has also been utilized to assess static pressures while the probe was being advanced. Because the CPT equipment was operated from the back of the drill rig, it was possible to auger or rotary drill through very stiff or gravely materials which could not be penetrated by hydraulically pushing the CPT. Nested probes were frequently rotary or 3.25 inch inside diameter

Hollow Stem Auger (HSA) advanced through the interval investigated by the CPT investigation sounding. The logs for these borings are presented in Appendix B. In some instances it was not practical to resume the CPT testing since drilling had advanced the hole through the proposed probe installation target zone. In many of these instances, nested monitoring probes were installed using the drilling rig in order to provide vertical coverage of multiple granular layers or zones which could not be adequately characterized by the CPT.

Safety precautions were taken to address the potential combustible gas issues during the course of the investigation. Personnel completing or observing the CPT investigation program were OSHA 40-hour Hazardous Waste Operations and Emergency Response (HAZWOPER) trained. Additionally, air monitoring was conducted within the CPT rig using a Multi Rae detector equipped with a photoionization detector (PID) for volatile organic compound (VOC) detection, a combustible gas detector, a hydrogen sulfide detector, an O2 sensor and a carbon monoxide detector. A Landtec GEM 500 Multiple Gas Analyzer capable of monitoring oxygen, carbon dioxide, methane and balance gases was also utilized to monitor the open hole and the sealed gas probe concentrations during the course of the investigation. Based on the open hole screening of the CPT sounding cone holes, only CPT location ML-29 detected the presence of significant methane concentrations (persistent concentrations greater than 5% LEL or 0.25% by volume). On March 30, 2009, a methane concentration of 4.7% by volume was detected at ML-29, located approximately 100 east of the southwest corner of the school building (Refer to Figure 1).

The CPT rig was utilized to collect the following data:

Soil Point and Shear Resistance - Pressure sensitive cells located at the tip and along the sleeve of the probe were utilized to characterize the soil texture. Software allows the pressure cell data to be utilized to calculate a friction ratio which is then correlated to Unified Soil Classification System (USCS) designations based on the method utilized by Robertson (1989). A continuous record of the soil stratigraphic conditions was obtained over the length of the CPT penetration (Refer to logs presented in Appendix A). As shown by the Nature and Extent Report dated (September 2008), the CPT soundings at the site have correlated very well to physical soil sample data.

Electrical Conductivity (EC) - Electrical conductivity varies as a function of the soil texture (sand tends to be resistive or have a lower conductivity), degree of saturation and due to the presence of ions in the groundwater. Previous CPT soundings around the west and south sides of the Mallard Lake Landfill site shown that the EC profile provides an indication of water and/or gas saturated zones in the soil. This information can be useful in defining any gas water interface which might exist within the soils. The electrical conductivity data is presented in the logs presented in Appendix A.

Piezometric Pressure Measurements - The CPT probe is equipped with a pressure transducer that was used to measure the soil pore water response to CPT penetration. The transducer also responds to the pressure generated by gas trapped within the soil. Thus, pore pressure dissipation tests conducted within the W1/W2 sand layer are used to evaluate the hydrostatic head and/or landfill gas pressure distribution within the soil (Refer to Appendix A). The hydrostatic pressure measurements can be used to identify zones where the groundwater head in the W1/W2 sand layer acts as a barrier to gas migration.

Finally, piezocone dissipation tests can be conducted to evaluate how quickly the pore pressures induced by pushing the cone into the soil dissipate. The time required for the pressures to dissipate is directly related to the hydraulic conductivity of the soil. Permeable sand seams tend to equilibrate

quickly, whereas clayey or silty intervals require greater periods of time for the induced pressures to dissipate. Due to the need to expeditiously complete the school investigations during the designated spring break window, few pore pressure dissipation tests were conducted. The pore pressure data collected during the investigation was reviewed qualitatively such that no quantitative analyses were conducted to estimate the hydraulic conductivity of the soils.

Soil Gas and Groundwater Sampling - The CPT/drilling rig was used to install temporary monitoring probes which were used to monitor gas concentrations using field instrumentation and to collect soil gas samples which were submitted to the lab for analysis. A ¾ inch diameter schedule 40 PVC monitoring probe was installed into the W1/W2 interglacial granular layer in order to monitor gas composition at each of the investigation locations. As in the case of previous site characterization, the landfill gas migration was identified as occurring primarily through the W1/W2 layer (a granular zone between the Wadsworth W1 and W2 Till members). However, because multiple granular zones were encountered at the CPT locations, additional probes were screened in other sand seams at several locations. The specific locations for nested probes were determined based on field data and mutual agreement with the USEPA field staff. The screen intervals of gas monitoring probes, summarized in Table 1, were chosen based on the texture and thickness of the granular layers, evidence of gas pressures or methane and also the proximity to the school.

The CPT data provided in Appendix A, was utilized to develop stratigraphic interpretations of the geologic conditions. This included the construction of geologic cross sections. The data was also evaluated to assess the presence of channels or coarse grained deposits which might influence transport and/or identify stratigraphic traps (generally high points at the top of the granular interval) where gas may have accumulated. The data was utilized to design corrective action strategies to capture the trapped gas.

The investigation program described above required that the CPT soundings locations be penetrated twice. The CPT shear and point resistance, electrical conductivity and piezometric measurements were conducted in conjunction with the first CPT sounding. The gas probe installation was accomplished after casing had been advanced during a second trip down the hole. Gas probe installation procedures are described in the subsequent sections.

Upon completion of the first CPT sounding, the headspace in the CPT hole was monitored (CO2, CH4, O2 and balance gas) using a Landtec GEM 500 Multiple Gas Analyzer. The monitoring was conducted after the CPT rod had been removed from the hole. The gas concentration measurements were made as soon as possible following the CPT rod removal from the hole. The analyzer probe intake was placed into the conehole below the ground surface (assuming that saturated conditions are not encountered). The CPT hole opening surrounding the gas analyzer hose was then temporarily sealed around the gas analyzer hose by packing plastic into the hole around the intake hose.

Following the headspace monitoring, a ¾ inch monitoring probe was installed at each location in order to provide a means of collecting future data. The probes were installed at each location, regardless of the results of the open hole gas monitoring results. The open hole gas monitoring results were considered in combination with the CPT results and the monitoring results from the nested probes installed in the Forest Preserve (i.e., nests at ML-06, ML-08, ML-09, ML-10, and ML-13) when considering the locations for shallow nested monitoring probes. As previously stated, the locations of any shallow nested probes, were determined based on review of the site data.

2.2 Gas Probe Installation Methods

Three CPT soundings were conducted on the west side of school (i.e., ML-22, ML-24 and ML-25). Each of the soundings was used to install a ¾ inch diameter temporary monitoring probe. An additional 5 CPT soundings (ML-28, ML-29, ML-30, ML-31 and ML-32) were completed along the south side of the school as part of the results Phase 1 investigation program. Probes ML-26 and ML-27 were also completed as part of the Phase I investigation along the west side of the baseball diamond, located northwest of the school. Probes ML-26 and ML-27 were completed as part of the Phase I investigation to further characterize the northern extent of the combustible gas migration. The probe construction details are presented in Table 1.

The CPT sounding data was used to assess the elevation of granular intervals, water table and to determine whether landfill gas was present. This data was used to determine the screen intervals for the probes. The probes were installed with the screen intervals intersecting granular units most likely to act as a gas migration pathway. As previously mentioned, during the open hole screening, probe ML-29 encountered methane concentrations in excess of the 50% LEL reporting level (i.e., 2.5% by volume), as such the investigation was expanded to include the Phase II CPT sounding locations on the north and east sides of the school. Probes ML-33 and ML-34 were completed on the north side of the school, whereas sounding ML-36 was completed along the east side of the school. Probe ML-35 could not be installed in the area long the northeast corner of the school due to the presence of numerous subsurface electrical utilities in the area.

On June 24, 2009 Fugro completed two additional CPT soundings ML-37 and ML-38 in the area between ML-18 and ML-19. The CPT soundings were completed to evaluate the continuity of the sand seams between the school area and the Mallard Lake Landfill. Sounding ML-37 was advanced to a depth of 30 ft (approximate elevation of 746.2 ft MSL) and ML-38 was advanced to a depth of 45 ft (elevation 740.1 ft MSL). The soundings were instrumented with gas monitoring probes in order to evaluate whether gas migration was occurring from the area south of the school.

The temporary probes provide a monitoring location from which gas pressures, concentrations and water levels could be observed. Measurements of the water levels within the probes were utilized to determine the potentiometric surface elevations as a function of the probe depth. Similarly, the gas concentration and pressure monitoring at the probes provided a basis for assessing trends in the data. The depths of the gas monitoring probes are summarized in Table 1. The locations of any shallow nested monitoring points were determined based on the CPT soil texture analyses, field monitoring observations for combustible gas, the vertical gas distribution data at offsite probe nests (ML-06, ML-08, ML-09, ML-10 and ML-13) as well as well as mutual agreement of the field and USEPA observation staff.

Each of the CPT test locations were instrumented with a ¾ inch inside diameter (I.D.) schedule 40 PVC temporary monitoring probe/well. The temporary probes were installed through flush joint EW casing (1-13/16 inch outside diameter) equipped with an aluminum sacrificial tip. When the rod was advanced to the desired probe installation depth, the tip was knocked out of the casing (by pulling the rods up) and the probe was installed through the casing.

Five foot sections of 0.010 inch slotted 0.75 inch diameter screens were used for the probe installations. The screen length used at a monitoring location was determined based on the thickness of any granular layer (i.e., 5 ft, 10 ft, etc.). At most locations, the granular interval was instrumented with a 10 ft long well screen. However, longer or shorter well screens were used in instances where the sand seams exhibited appreciable changes in the thickness of this unit. The probe's annular space was sealed using

a minimum of three bentonite packers placed at 10 foot vertical intervals above the well screen. The packers were hydrated with distilled water prior to retracting the well casing. Once the packers had been allowed to hydrate, the upper portion of the borehole was sealed using granular bentonite which was installed and hydrated from the ground surface. Each of the monitoring probes was completed with a sealed flush mount protector casing. The flush mount protector casings were maintained at an elevation such that lawn maintenance equipment could clear the top of the installation.

As previously noted, during the course of the Spring Break recess investigations, methane was detected at probe ML-29. USEPA, IEPA and the school district were notified of the methane detection at probe ML-29 and these parties were also notified of the need to conduct the Phase 2 investigations to further delineate the extent of the gas migration. As such, CPT soundings were also completed along the north (ML-33 and ML-34) and east (ML-36) sides of the school.

2.3 Surveying

The locations and elevations of each of the CPT test locations will be surveyed so that the water level data collected could be used to assess groundwater elevation. The locations and elevations of the test locations were surveyed using survey level for elevation (+ 0.01 ft) and for horizontal location (+ 0.1 ft). The probes were surveyed by Landmarc Inc. a subsidiary of Weaver Boos Inc. The survey data is presented in Table 1 along with the probe construction details. The survey data enabled the stratigraphic and groundwater elevation data to be referenced to both the State Plane and the site based coordinate systems.

2.4 Gas Probe Monitoring

Following installation of the probes, they were monitored for methane, carbon dioxide, oxygen and balance gas using the Landtec GEM 500 instrument. VOCs were also monitored using a PID. Following the initial investigations which were conducted during the schools Spring Break recess, additional rounds of monitoring of the probes (after initial installation) was coordinated with school officials. As shown in Appendix C, several complete rounds of monitoring were completed at each of the probes during the spring and summer. Based on the monitoring, only probe ML-29 has consistently indicated the presence of elevated methane levels on the school property.

Because methane was detected at probe ML-29 in close proximity to the school building, the monitoring probes underwent headspace VOC analyses to assess whether the gas contained elevated concentrations of VOC constituents. A gas sample was collected at probe ML-29 using a 6 liter summa canister which had been inerted (purged and heated to remove VOCs) and evacuated to create a vacuum. The canisters and preset regulators were shipped to the site by Contest Analytical Laboratory of East Longmeadow, Massachusetts. The canisters were shipped to the site under a vacuum of approximately -30 inches of mercury (in Hg). Gas samples were collected directly from corresponding probes by connecting disposable vinyl tubing to the probe via a quick disconnect fitting. Pursuant to USEPA request summa canister samples were collected as grab samples by opening the primary canister valve until the canister achieved pressure equilibrium with the probe. Once the canisters were filled (i.e., canister pressure between 0 and -2 in Hg) the valve was closed and the tubing was disconnected from the canister. The summa canister valve cover plug was then re-installed and the canister was boxed for shipment to the analytical laboratory under chain of custody. The canister samples were analyzed for USEPA method TO-15 VOC parameters and for method 3C major gas constituent concentrations (i.e., methane, carbon dioxide, carbon monoxide, oxygen and nitrogen).

2.5 Under Slab Monitoring at Greenbrook School

Since methane gas was detected during the Phase 1 investigations at probe ML-29 located in close proximity to the school, shallow under slab monitoring was conducted to assess the potential for gas migration into the school. Sub-slab monitoring probes were installed at four locations within the southwestern portion of the building in close proximity to where probe ML-29 had detected methane along the perimeter of the building (Refer to Figure 2). As shown in Figure 2, the majority of the sub-slab monitoring points (Subslab monitoring points SS1, SS2 and SS4) were installed within the interior hallways of the building in relatively close proximity to probe ML-29. Subslab monitoring location SS-3 was located in the library near the center of the school building, in the area north of probe ML-29. The subslab monitoring points were installed by drilling a 1/2-inch diameter hole through the floor slab into the granular base course materials below the slab. Teflon tubing was installed into the hole and the sample port was sealed into place using flexible weather stripping to create a gas-tight seal. At each of the locations, the concrete subslab was approximately 4 to 5 inches thick and a granular backfill material was encountered beneath the floor slab at each location. Once the seals had set and cured, sampling was conducted by purging the probe of approximately three volumes of air (approximately 0.3 liters) before the gas concentrations were monitored. The purging was conducted using the GEM 500 which typically pumps approximately 0.3 to 0.4 liters per minute. The soil gas obtained from the probes was analyzed in the field for methane, carbon dioxide, oxygen and balance gas (primarily nitrogen) using the GEM 500. The GEM 500 pump exhaust was also analyzed for the presence of VOCs using a PID.

Prior to collecting the summa canister samples, each of the subslab ports underwent leak detection testing. A plastic enclosure was placed over the floor slab port and the port was connected to an extension tube which exited the enclosure through a rubber grommet. The plastic enclosure was then filled with helium and the probe was placed under vacuum. The air flow from the extension tube connected to the subsurface port was then analyzed in the field using a portable Dielectric model MGD-2002 helium detector. If detectable concentrations of helium were observed, the seal and tube fittings were adjusted and the leak testing was performed again. This procedure was followed until the leak check was passed.

Each of the sub-slab port locations passed the leak detection testing, so that the summa canisters sampling was conducted immediately after the leak detection testing. The samples were collected by attaching the summa canister to the probe using swagelock compression fittings. The regulator was then opened to initiate the airflow into the summa canister. The regulator was preset by the laboratory to provide a relatively constant flow of air into the summa canister over an eight hour period. Once the canisters were filled (i.e., canister pressure between 0 and -2 in Hg) the valve was closed and the tubing was disconnected from the canister. The summa canister valve cover plug was then re-installed and the canister was boxed for shipment to the analytical laboratory under chain of custody. The canister samples were analyzed for USEPA method TO-15 VOC parameters and for method 3C major gas constituent concentrations (i.e., methane, carbon dioxide, carbon monoxide, oxygen and nitrogen).

2.6 Ambient Air Sampling

Air samples were collected at two indoor locations and two outdoor locations (Refer to Figure 2 for sample locations). A duplicate indoor air sample (IA1 Dup) was taken at location IA1 in the hallway along the south side of the building. The second indoor air sample was collected in the central portion of the hallway located in the western portion of the building. The outdoor air samples were collected just outside the west side of the building (OA1) and OA2 from near the northeast corner of the building (refer to Figure 2). Both the indoor and outdoor samples were collected by attaching the regulator to the summa canister and opening the valve to allow the canister to fill with ambient air. The regulator was

shut and the canister sealed prior to the canister pressure equilibrating with atmospheric pressures (i.e. between 0 and -2 inches of Hg).

2.7 Site Restoration

Following the completion of the CPT investigation and the probe installation, any damage to the site was repaired. Smaller areas of damage that required immediate repair (i.e., tire ruts in the lawn outside the school) were repaired by AECOM staff using top soil, fertilizer and grass seed. Larger areas were repaired by A Lamp Inc. of Schaumburg Illinois.

3.0 Results of Investigation

A total of 13 CPT soundings were conducted in the area surrounding the Greenbrook School. The CPT sounding coordinates and depths are summarized in Table 1. The CPT sounding logs and detailed tool readings are presented in Appendix A. Soil boring logs for the probes that were advanced by rotary of hollow stem auger drilling techniques are also presented in Appendix A. As shown by Table 1, the sounding depths ranged from a minimum of 30.02 ft at ML-27 to a maximum of 59.88 ft at ML-31. The CPT sounding data were utilized to assess the geologic (soil lithology) and hydrogeologic conditions (i.e., pore pressures etc.) in the vicinity of the school. The findings of the CPT investigation are discussed in the following sections.

3.1 Geologic and Hydrogeologic Conditions

Geologic Cross Section AA' (refer to Figure 3) extends from the southwest to the northeast and includes several CPT soundings completed along the south side of Greenbrook School (i.e., CPT soundings ML-22, ML-29, ML-30, ML-31 and ML-36). As shown by Geologic Cross Section A-A', thin silty sand deposits exist in the vicinity of the school at approximately 20 ft below grade (elevation 760 to 765 ft MSL). These sand deposits appear to be contiguous with the offsite granular units previously identified at probes ML-10i, ML-09i and ML-06i along the west side of the school property.

The sand unit appears to be saturated at the majority of the probe locations completed along the south side of the school (i.e., ML-22, ML-29, ML-30 and ML-31). Probes ML-10i and ML-23 located in the Forest Preserve near the southwest corner of the school property initially encountered unsaturated or partially saturated conditions. However, subsequent water level measurements indicated that water levels had increased and saturated conditions prevailed throughout the area (Refer to Figures 3 and 4 for water levels). The increase in water levels at probes ML-10i and ML-23 which were initially unsaturated may indicate that vacuum extraction from these probes has caused an accumulation of water (Refer to Section 4.2 for a discussion of probe extraction activities). The initially unsaturated conditions observed at probes ML-10i and ML-23, suggested that portions of the W1/W2 sand seam provided a potential gas migration pathway and/or a stratigraphic trap in which the gas has collected. The unsaturated conditions appeared to be associated with a stratigraphic high elevation point on the top of the sand seam (refer to Cross-Section A-A'). The trapped gas in this granular unit is overlain by approximately 18 or more feet of clayey till that appears to provide a significant impediment to vertical gas migration.

Based on the CPT sounding at ML-31, a deeper silt to silty sand zone was encountered at a depth of 46.9 to 48.06 ft below ground surface. Based on the stratigraphic location (approximately 30 ft below the W1/W2 Unit), this unit is believed to be correlated to the upper portion of the W3 member of the Wadsworth Till Unit which Bogner 1988 characterized as frequently containing a siltier lower water content diamicton (till) unit. The vertical pore pressure profile observed at ML-31 suggests minimal hydrostatic pressures which increases with depth suggesting that significant downward vertical gradients exist across the till unit. Downward vertical gradients have been widely observed in the CPT soundings and nested monitoring probes completed in all areas of the site. The combination of downward vertical gradients and the undulating nature of the sand seam result in locations where the high points along the upper surface of the sand seam are seasonally unsaturated. As identified in March 2009 along the west side of the school property (at probes ML-10i and ML-23), these seasonally unsaturated granular zones may provide a migration pathway for the movement of combustible gases. Alternatively, the

unsaturated portions of the sand seams which exist at stratigraphic high elevation points may function as a stratigraphic trap or collection point for the accumulation of gas which has become immobilized by the groundwater saturated portions of the sand unit.

Sensitive silts and clays and organic deposits were logged at CPT sounding ML-34, along the north side of the building at a depth of approximately 29 to 30 ft. This suggests that the granular water laid deposits may grade laterally to lacustrine or accretion gley deposits which contain organic rich layers. It is possible that the anaerobic decomposition of these types of organic deposits could act as a possible source of naturally occurring methane. However, to date, neither the open hole monitoring, nor the monitoring at the completed probe ML-34 has suggested the existence of any elevated concentrations of methane at this location (refer to Appendix C for gas monitoring results).

CPT soundings conducted in the northwestern portion of the investigation area, in the vicinity of the baseball diamond encountered similar conditions. Two sand layers were encountered at CPT sounding ML-26. The upper granular unit appeared to be consistent with theW1/W2 unit observed at the other monitoring locations. This unit consisted of a thin silty sand unit (USCS Classification SM) which was approximately 1ft in thickness. A deeper coarser sand layer was encountered at approximately 30 ft below ground surface. This sand unit contains appreciable sand and gravel and thus appears to be much coarser in texture than the other units observed in the vicinity of the school property. Geologic Cross Section B-B' (Figure 4) extends from the south to the north along the western property boundary of the school. As shown by the cross section, the W1/W2 granular unit appears to be separated at ML-26 from the W3 granular zone by approximately 5 to 6 feet of silty clay. The Lemont Drift granular unit is inferred at a depth of approximately 56 feet below grade. This unit was encountered at similar depths at locations ML-06, ML-08, ML-09, ML-10 and ML-25 along the west side of the school property.

3.2 Gas Probe Installation

Gas monitoring probes were completed at each of the CPT sounding locations. In some instances, the stiff till deposits could not be penetrated hydraulically by direct push methods. As such, several of the probes were advanced to the final completion depths using rotary and or hollow stem auger drilling methods. Completion details for non-CPT installed probes are provided in Appendix B. Table 1, summarizes the probe depths as well as the drilling method used to advance the probe. The use of clear water rotary wash drilling methods precluded the ability to screen the open hole for the presence of methane while the boring was advanced. As such, three nested probes were installed at ML-25 (i.e., ML-25S, ML-25i and ML-25D) in order to provide discrete sampling points for each of the granular units encountered during the CPT sounding.

As previously stated, shallow probes were installed at locations where the CPT test data suggested the existence of stratigraphically shallower sand units which might act as a migration pathway or at locations where the gas present at adjacent gas probes in close proximity to the school warranted the installation of shallow nested probes. As shown by Table 1 and the cross section A-A' provided in Figure 3, the majority of the gas probes have been completed within the W1/W2 sand seam observed at approximately 765 ft. MSL (approximately 20 ft. below grade) in the vicinity of the school.

3.3 Gas Probe Monitoring Results

The landfill gas monitoring probe results are presented in tabular form in Appendix C and graphically in Appendix F. Based on the quarterly round of comprehensive monitoring conducted on June 4 and 5; and again in mid August 2009, none of the monitoring probes installed at the school exhibited methane levels greater than the 50% LEL or 2.5% methane by volume (i.e., the reporting limit pursuant to 35 IAC 811.311(a)(1) of the Illinois Waste Disposal Regulations). Monitoring probe ML-29 exhibited a methane

concentration of 1.0% by volume (20% LEL) on June 4, 2009. Since monitoring probe ML-29 was installed on March 30, 2009, the methane concentrations have ranged from a maximum of 4.7 mg/L in the open hole monitoring to non-detectable on April 1, 2009. The majority of the recent concentrations have ranged between 1.7% and 1.0% suggesting that the concentrations may have dissipated since the methane was first detected.

Probe ML-29 has not generally exhibited significant positive pressures (i.e., pressure variations have generally been limited to a few inches of water column which is typical of the barometric pressure induced pressure fluctuation range exhibited at the majority of the probes). The high pressure observed at ML-29 on April 8, 2009 (+11.2 in H2O) appears to reflect pressure build up as the groundwater level rebounded in the sealed probe (i.e., not vented to atmosphere) after the probe was installed. No similarly elevated pressures have been observed. As previously mentioned, probe ML-29 is completed within a silty sand layer approximately 18 feet below ground surface. The overlying soils consist of silty clay till deposits. Thus, it is believed that the sand unit is confined by the overlying clay till soils. None of the other probes completed on the school property have indicated the presence of combustible gases.

Figure 1 presents the locations of the gas monitoring probes which have been installed in the Greenbrook School area. Figure 1 has been color coded such that blue probe labels indicate that methane concentrations have remained below the 50% LEL regulatory limit required by 35 IAC 811.311(a)(1). The red probe labels indicate probes where the historical methane concentrations have been above the regulatory threshold (refer to Appendix C for summary of the historical gas concentrations). As shown by Figure 1, it appears that the gas detected at probe ML-29 located along the southern perimeter of the school is likely to be contiguous with the gas detected at probes ML-14 and ML-20 along the southern and/or the western property boundary (i.e., the gas detected at probes ML-10i, ML-08i). It is possible that stratigraphic conditions (clayey soils) and/or groundwater levels at probe ML-22 have resulted in localized discontinuous conditions which result in the absence of combustible gas at this probe. This anomalous point makes the extent of the gas migration appear less continuous than might be anticipated from the other data points. Based on the distribution of gas probes which exhibit elevated methane concentrations, it appears that the methane has migrated from a source located west of the school.

In order to further evaluate the potential source of the methane, two additional probes (ML-37 and ML-38) were installed on June 26, 2009. The probes were installed by Fugro Inc. of Houston, Texas using a 24 ton box truck mounted cone penetrometer rig. As shown in Figure 1, probes ML-37 and ML-38 are located between previously completed probes ML-18 and ML-19, approximately 400 feet southwest of the school property. Neither of the probes encountered detectible levels of methane either within the open borehole or within the completed probes. Similarly, only thin (0.1 to 0.3 ft thick) saturated sand seams were identified. As such, neither these probes, nor the previously installed probes (ML-15, ML-18 and ML-19) located south of the school provide any data to suggest that the combustible gas detected in the vicinity of the school has migrated from the Mallard Lake Landfill.

3.4 Summa Canister Monitoring

Because methane was detected at probe ML-29, in close proximity to the school building, the monitoring probes underwent headspace VOC analyses to assess whether the gas contained elevated concentrations of potentially harmful VOC constituents. A gas sample was collected at probe ML-29 using a 6 liter summa canister which had been inerted (purged and heated to remove VOCs) and evacuated to create a vacuum. The canister samples were analyzed for USEPA Method TO-15 (VOCs) and method 3C major atmospheric gas constituents (oxygen, carbon dioxide, nitrogen, carbon monoxide and methane) by Contest Analytical Laboratory of East Longmeadow, Massachusetts.

The results of the probe ML-29 monitoring are presented in Appendix D. As shown in Appendix D, the Method 3C results confirmed the presence of methane at concentrations less than the lower explosive limit (19,800 ppmv or 1.98% methane by volume). The nitrogen concentration at ML-29 (95% by volume) was elevated relative to atmospheric conditions which are typically approximately 80%. The oxygen concentration was less than the reporting limit of 4.2%, and the carbon dioxide level was reported to be 3.84%. A slightly elevated concentration of carbon monoxide was reported in the ML-29 sample (i.e. 2.26% by volume). However, based on discussions with the lab, the carbon monoxide results are likely to be suspect since the total of these gas concentrations is approximately 103% and thus exceeds 100%. The laboratory suggested that the carbon monoxide results may have been overestimated since the chromatogram carbon monoxide peak tends to co-elute with carbon dioxide making it difficult to quantify the concentrations.

The analyses also indicated the presence of the following trace concentrations of VOC constituents: acetone, MEK, ethanol, methylene chloride, benzene, chloromethane, carbon disulfide, ethyl benzene, toluene and xylene. Based on these analyses, the gas appeared to be similar in composition to the samples previously collected from probe ML-6. Pursuant to the work plan requirements, the presence of methane and VOCs at ML-29 required that that the summa canister investigation be expanded to include air samples collected from of the under slab of the school and from the interior of the school.

As discussed in Section 2.5, subslab monitoring points SS1, SS2 and SS4 were installed within the interior hallways of the building in relatively close proximity to probe ML-29 (refer to Figure 2 for sample locations). The subslab port, interior air and exterior air samples were collected on April 1, 2009. As discussed in Section 2.5, the subslab port samples were not collected until after the connections and floor seal were leak tested. As in the case of probe ML-29, both the subslab port and the surface air samples were analyzed by ConTest for Method TO-15 VOC constituents and Method 3C major gaseous constituents. The results of this monitoring are presented in Appendix D and are summarized in Table 3. As indicated by Table 3, with the exception of ML-29, the methane concentrations at each of the above grade and below grade sample locations were below reporting limits of 16 ppmv. The nitrogen and oxygen concentrations at the sub slab monitoring locations were generally similar to atmospheric conditions.

VOC concentrations detected in the subslab presented no evidence of an impact which might be associated with combustible gas migration. Because VOCs are present in numerous commercial products (markers, paint, cleaning agents, gasoline, nail polish, hair spray etc.), VOC constituents frequently tend to be detected within indoor air samples. As shown in Table 3, all three of the indoor air samples collected from the school indicated the presence of trace concentrations of VOC constituents. The constituents: acetone, MEK, dichlorofluoromethane, ethanol, ethylbenzene, toluene and xylene were detected most frequently and at the highest concentrations. However, these constituents do not suggest potential for vapor intrusions since the concentrations of these compounds detected in the sub slab samples did not occur at significantly higher concentrations than in the indoor air samples. Pursuant to the USEPA Guidance (November 2002), significant evidence of vapor intrusion is not considered to exist unless the concentrations below the floor slab are at least 10 times greater than the concentrations observed within the building (Refer to USEPA, November 2002 Generic Screening levels). Based on the relative inconsistency in the VOC constituents detected above and below the slab and the lack of significant concentration gradients, the summa canister data does not suggest that the VOCs detected in the school are the result of vapor intrusion from the subsurface.

Subsurface slab sample SS2 indicated relatively elevated concentrations of dichlorodifluoromethane or Freon R-12 (1300 parts per billion by volume or ppbv). However, this constituent does not appear to be associated with migration of landfill gas. While various Freon compounds have been frequently

detected in the combustible gas adjacent to the Mallard Lake Landfill, the gas which has migrated from the landfill has most frequently exhibited elevated levels of 1,2-dichlorotetrafluoroethane or Freon R114 rather than R-12. Similarly, Freon R-12 was not detected in the soil gas samples collected from probe ML-29 and only trace concentrations (less than 1 ppbv were detected at probe ML-6i. Because Freon R-12 was a commonly utilized propellant in aerosol cans prior to 1987, it is possible that an aerosol can (i.e., spray paint, starter fluid etc.) was disposed of in the sub-base materials prior to the floor slab being poured.

The outdoor air samples also indicated trace concentrations of the VOC constituents acetone, and ethanol, suggesting either elevated background concentrations or potentially, low levels of cross contamination at the laboratory or in the summa canisters. These low levels do not pose a health or environmental risk. Similarly, the indoor air sample results have been reviewed by the USEPA and have been deemed safe.

Based on the preceding discussion, no evidence of vapor intrusion from the subsurface soils is apparent. VOCs detected below the school floor slab do not appear to be consistent with the VOC constituents detected in surrounding probes where methane has been detected. As such, the methane detected in the subsurface probes does not appear to be linked to concentrations detected within the sub-slab samples. It is likely, that the VOCS below the slab result from either spillage of products, or potentially from aerosol cans utilized during site construction. Based on review of this information, USEPA has indicated that " Data collected to date, do not suggest a public health hazard to the staff or students..." (Refer to Appendix E).

3.5 Investigation Summary

As discussed above, no evidence of vapor intrusion was identified which would impact the use of the school building. Additionally, based on the following factors, the potential for migration of significant concentrations of combustible gas into the school structure is minimal:

- The methane concentrations at ML-29 (the only probe on the school property which detected methane) are relatively low (less than the lower explosive limit) and the concentrations have indicated a decreasing trend since corrective action efforts were undertaken at Well LDE-13;
- The static pressures at ML-29 have been negligible, indicating an absence of significant positive gas pressures which might otherwise act to promote migration;
- The sand seam occurs under confined conditions, and the presence of the upper clay confining layer acts to minimize vertical migration of the gas;
- The school design consists of slab on grade construction with no basements. Thus, the building is not constructed in a manner which would act to decrease the separation distance between the school and the granular layer; and
- Neither the monitoring of the gas samples collected from below the school floor slab, the samples collected from within the school, nor the continuous methane detection meter(s) which have been installed in the school have indicated any evidence of gas migration into the school.

These factors indicate that the school has not been impacted by migration of combustible gases. The trace VOC concentrations detected in the indoor air do not appear to be correlated to VOC constituents detected in either the sub-slab samples or the samples from gas probes ML-06 or ML-29. Thus, the trace indoor air VOC detections are believed to be related to sources other than the soil gas identified at ML-06i and ML-29. As previously mentioned, numerous commercial and residential products exist which emit VOCs (carpet adhesives, markers, glue, etc.). Additionally, both of the two outdoor air

samples also indicated the presence of trace concentrations of VOCs. This may suggest that some laboratory cross-contamination has occurred. Thus, the VOCs detected in the school indoor air samples do not appear to be associated with subsurface gas migration.

4.0 Summary and Conclusions

Combustible gas was detected in probe ML-06 in June of 2008. The combustible gas concentrations at ML-06D appeared to increase as a function of repeated gas monitoring of the probe suggesting that negative pressures resulting from the monitoring rounds had induced the gas to collect at the probe. Subsequent summa canister monitoring indicated the presence of a relatively wide assemblage of VOC constituents. Gas probes ML-08i, ML-09i and ML-10i installed along the west side of the school property and probes ML-23 and ML-13(S and i) along the south side of the school property indicated a relatively expansive area of trapped gas and suggested the need to characterize potential gas migration onto the school property.

In December 2008 a work plan was prepared to describe the work scope for the investigation of the school property. A CPT investigation was initiated during the Spring Break recess. Gas monitoring probes were installed at a total of 13 locations within the school property. Elevated methane concentrations (maximum of 4.7% by volume) were detected at only one of the locations, probe ML-29 along the southwestern corner of the school. No other significantly elevated methane concentrations were identified. VOC analysis of the air samples collected from probe ML-29 indicated trace concentrations of several VOC constituents, suggesting that the gas was not derived from drift gas associated with decay of organic matter within the till.

Summa canister samples collected from subslab monitoring points installed along the south and west sides of the school indicated trace concentrations of several common VOC constituents. Relatively elevated concentrations of dichlorodifluoromethane or Freon R-12 (1300 ppbv) were detected at location SS2. However, because no detectable methane concentrations were detected in any of the three subslab locations, it is apparent that the elevated R-12 concentrations are not associated with combustible gas migration. Similarly, the R-12 concentrations at both probes ML-06 and ML-29 have been extremely low or below reporting limits. Thus, it is apparent that the subslab concentrations of this constituent are not consistent with the trapped subsurface soil gas.

5.0 References

AECOM (September 2008) Nature and Extent Report, Mallard Lake Landfill Administrative Order on Consent. Submitted to USEPA on Behalf of BFI and the Forest Preserve District of DuPage County.

AECOM (December 2008) Greenbrook School Investigation Plan. Plan Submitted to USEPA on behalf of BFI and the Forest Preserve District of DuPage County submitted in response to Administrative Order on Consent.

AECOM (April, 2009) Comprehensive Corrective Action Plan, Mallard Lake Landfill Administrative Order on Consent. Submitted to USEPA on Behalf of BFI and the Forest Preserve District of DuPage County.

Bogner, J., 1988, Geology of Mallard Lake and Vicinity, Report prepared for Forest Preserve District of DuPage County, IL, through Geotechnics, Inc. Columbus, OH. August 1, 1988.

CQM Inc. (December 2008) Significant Permit Modification Application – 2008 Gas Management System Repair and Maintenance Documentation.

Robertson (1990). Soil Classification using Cone Penetrometer Testing. Canadian Geotechnical Journal. V27. Pages 151-158

USEPA (November 2002) Draft Guidance for Evaluating the Vapor Intrusion to Indoor Air Pathway from Groundwater and Soil (Subsurface Vapor Intrusion Guidance), EPA document 530–D–02- 004.

APPENDIX

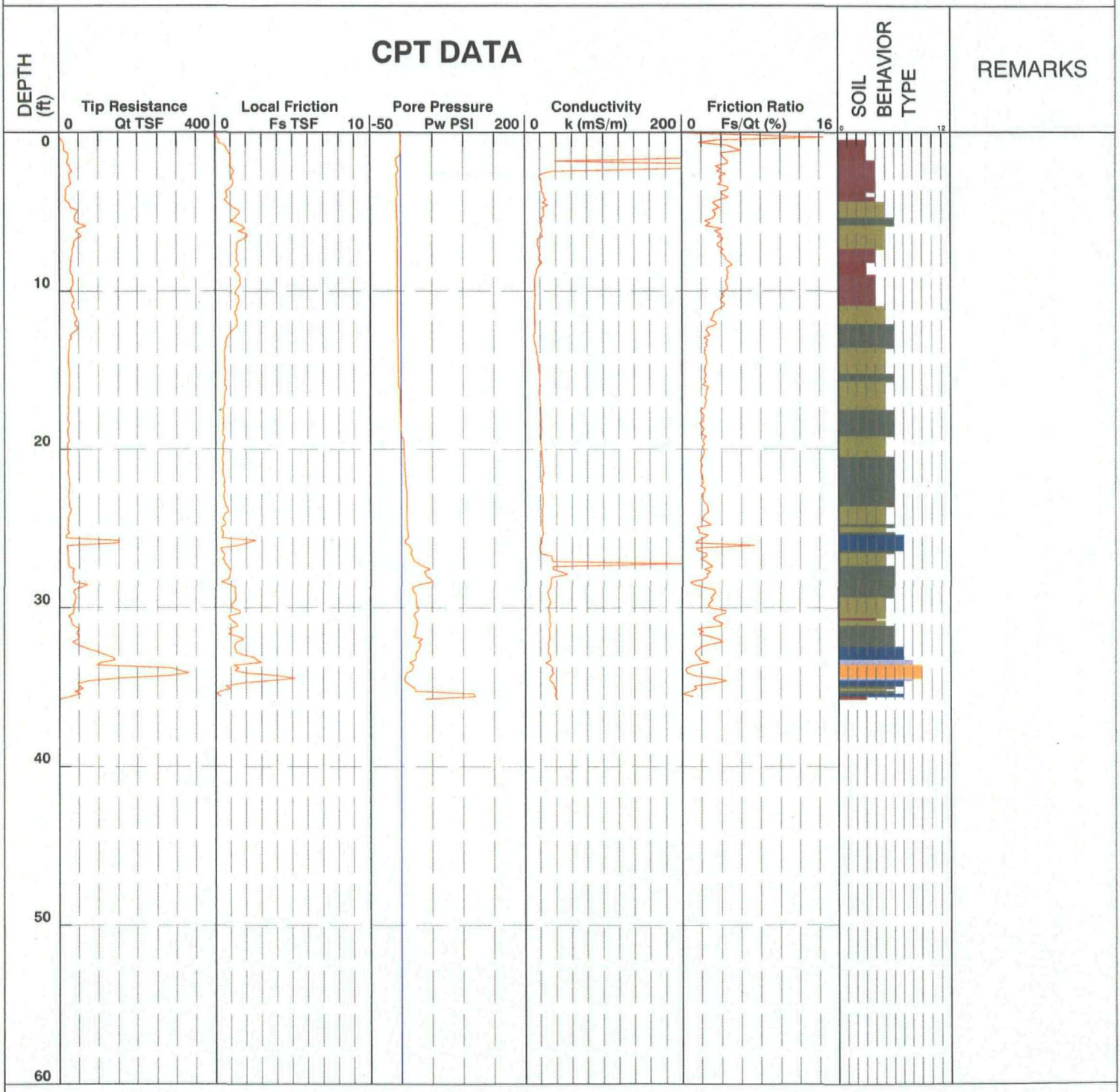
Appendix A

Appendix A CPT Logs

AECOM

CPT-ML-22 | 60095184 | SBB-B61

MALLARD LAKE | 4/2/2009 10:07:31 PM



AECOM

CPT-ML-24 | 60095184 | SBB-B61

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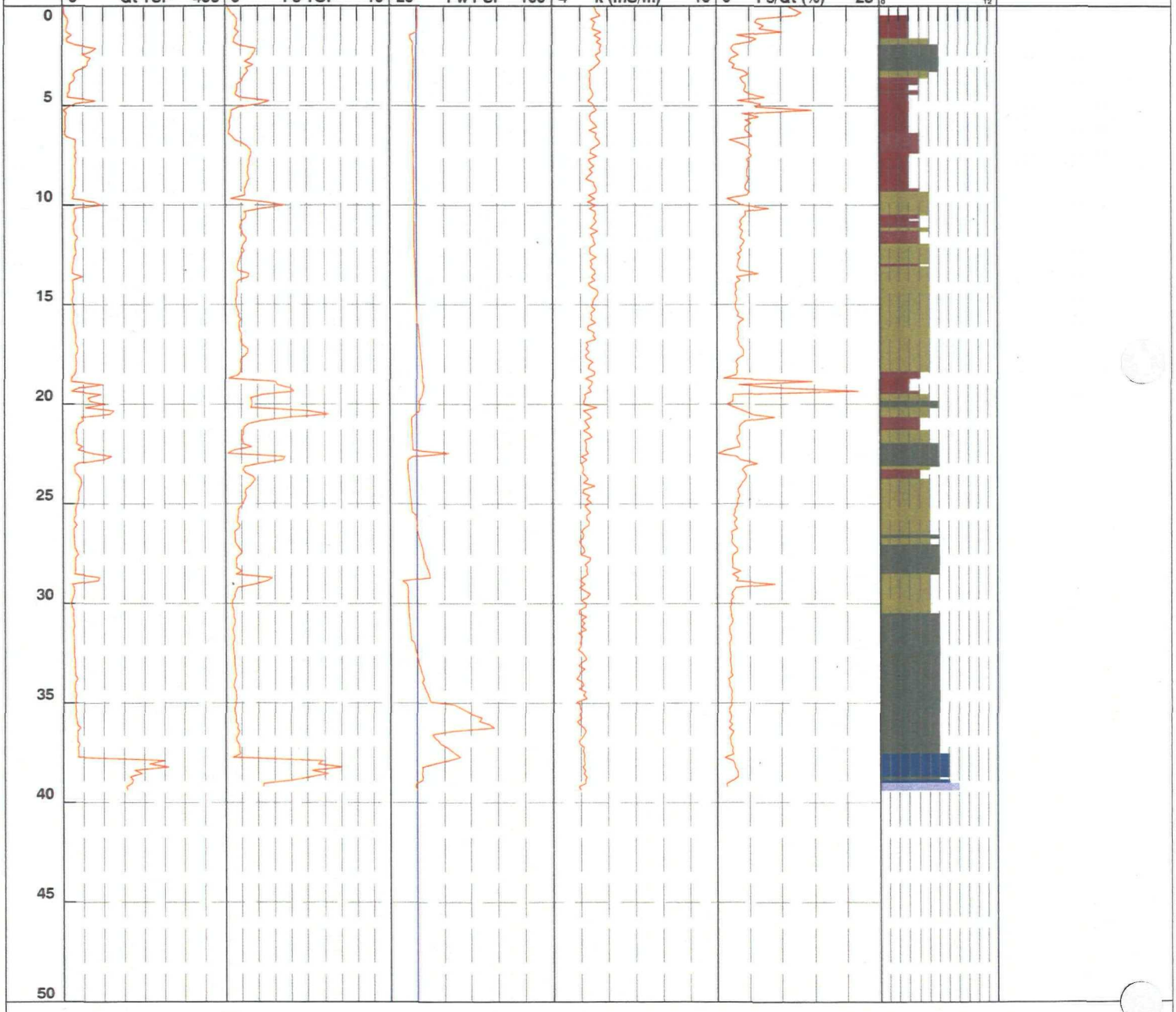
CPT DATA



1 - sensitive fine grained
2 - organic material
3 - clay
4 - silty clay to clay
5 - clayey silt to silty clay
6 - sandy silt to clayey silt
7 - silty sand to sandy silt
8 - sand to silty sand
9 - sand
10 - gravelly sand to sand
11 - very stiff fine grained (*)
12 - sand to clayey sand (*)

AECOM

CPT-ML-25 | 60095184 | SBB-B61

MALLARD LAKE | 3/31/2009 9:03:00 PM

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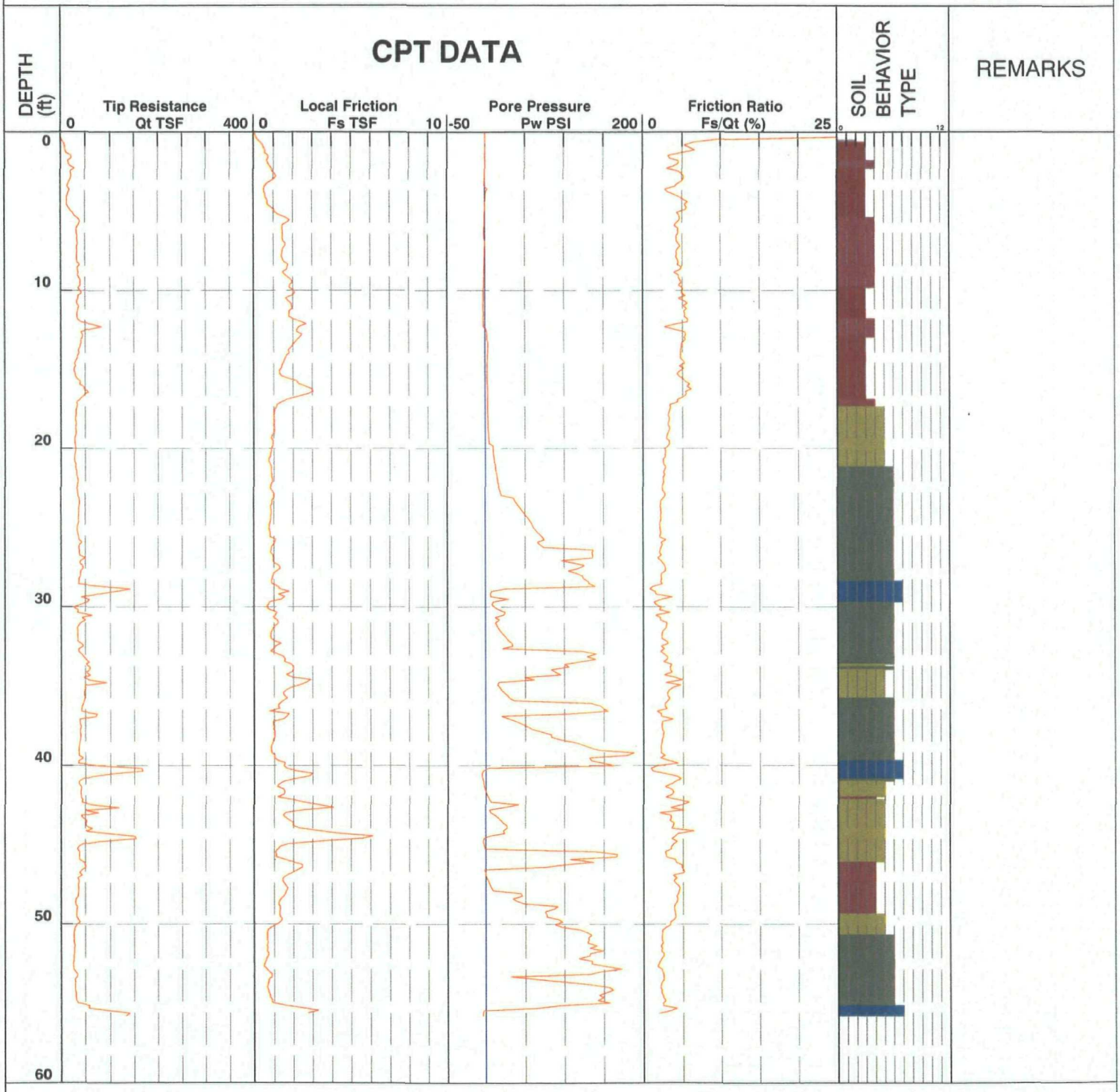

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2 - organic material
3 - clay
4 - silty clay to clay
5 - clayey silt to silty clay
6 - sandy silt to clayey silt
7 - silty sand to sandy silt
8 - sand to silty sand
9 - sand
10 - gravelly sand to sand
11 - very stiff fine grained (*)
12 - sand to clayey sand (*)

AECOM

CPT-ML-26 | 60095184 | SBB-B61

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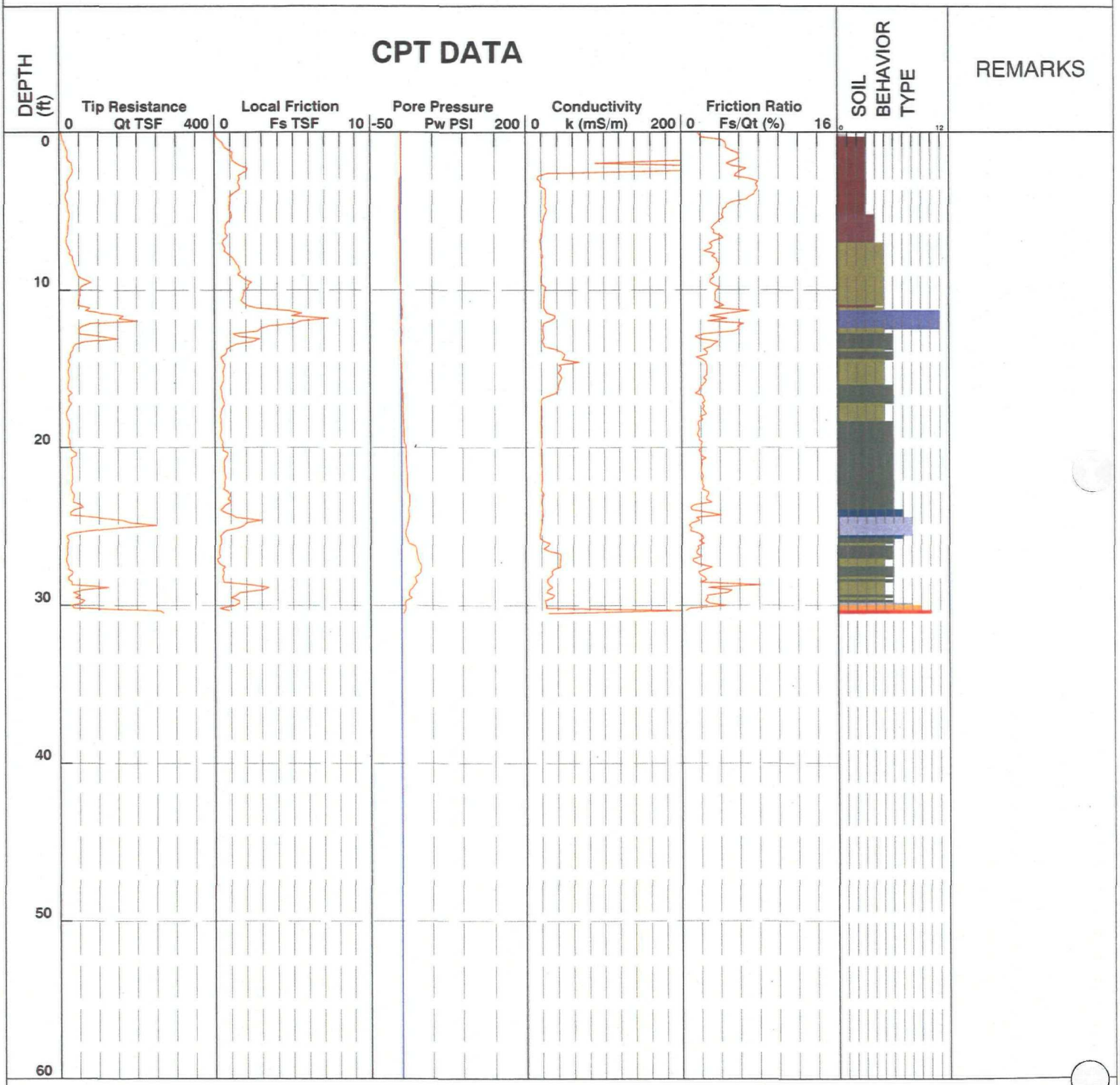

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2 - organic material
3 - clay
4 - silty clay to clay
5 - clayey silt to silty clay
6 - sandy silt to clayey silt
7 - silty sand to sandy silt
8 - sand to silty sand
9 - sand
10 - gravelly sand to sand
11 - very stiff fine grained (*)
12 - sand to clayey sand (*)

AECOM

CPT-ML-27 | 60095184 | SBB-B61

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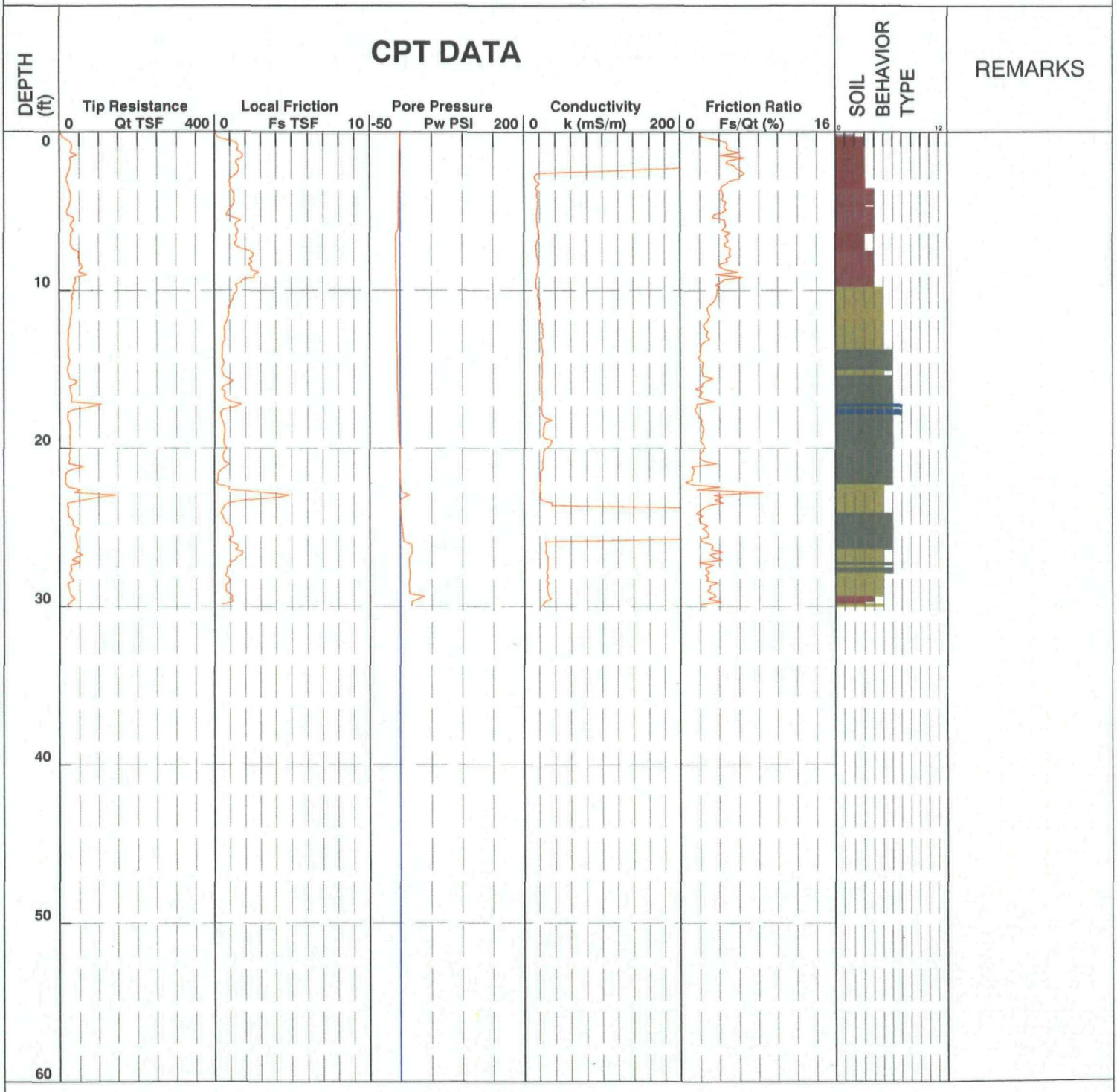

AECOM

CPT-ML-28 | 60095184 | SBB-B61

MALLARD LAKE | 4/3/2009 8:56:44 PM

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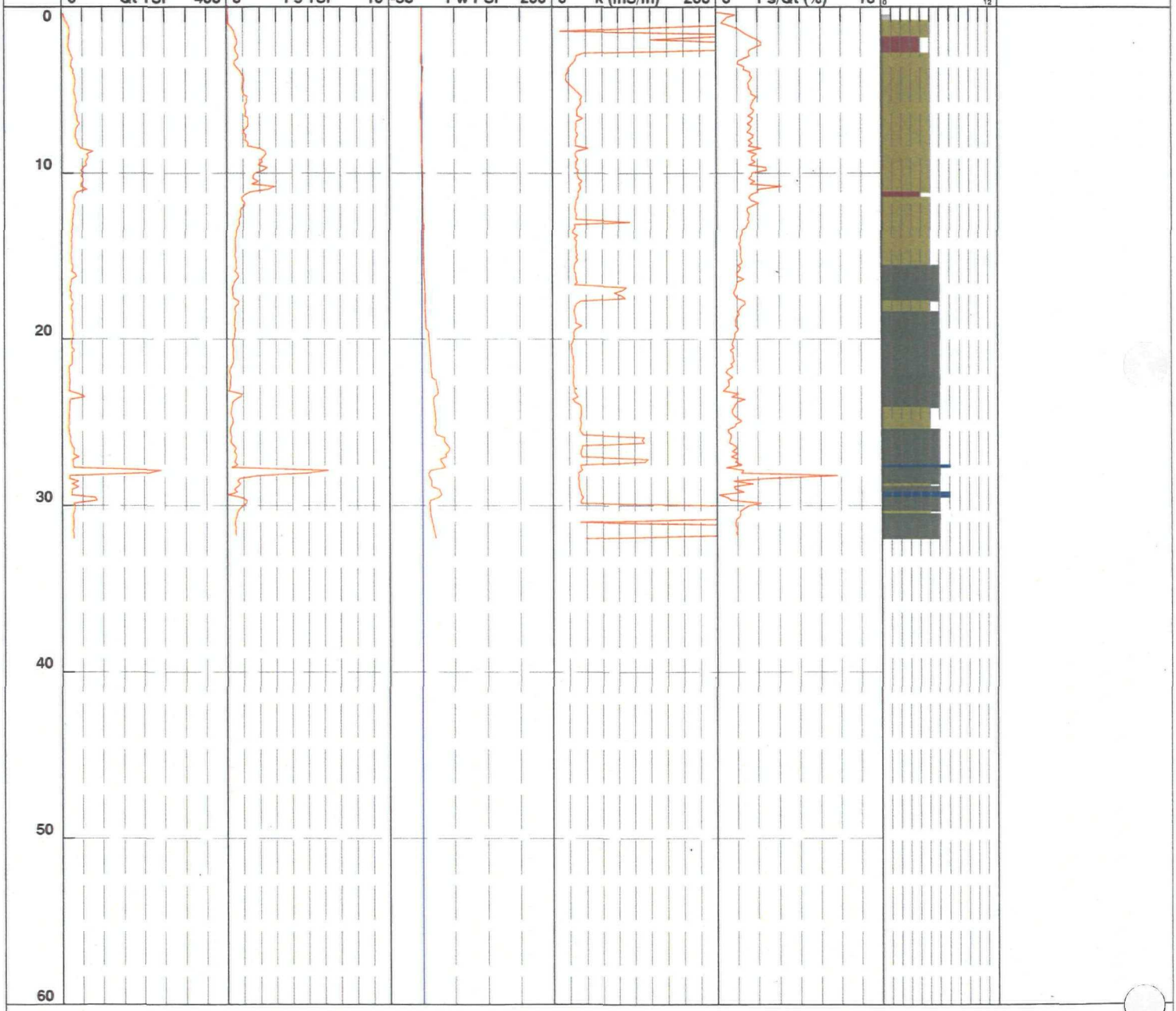

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4 - silty clay to clay
5 - clayey silt to silty clay
6 - sandy silt to clayey silt
7 - silty sand to sandy silt
8 - sand to silty sand
9 - sand
10 - gravelly sand to sand
11 - very stiff fine grained (*)
12 - sand to clayey sand (*)

AECOM

CPT-ML-29 | 60095184 | SBB-B61

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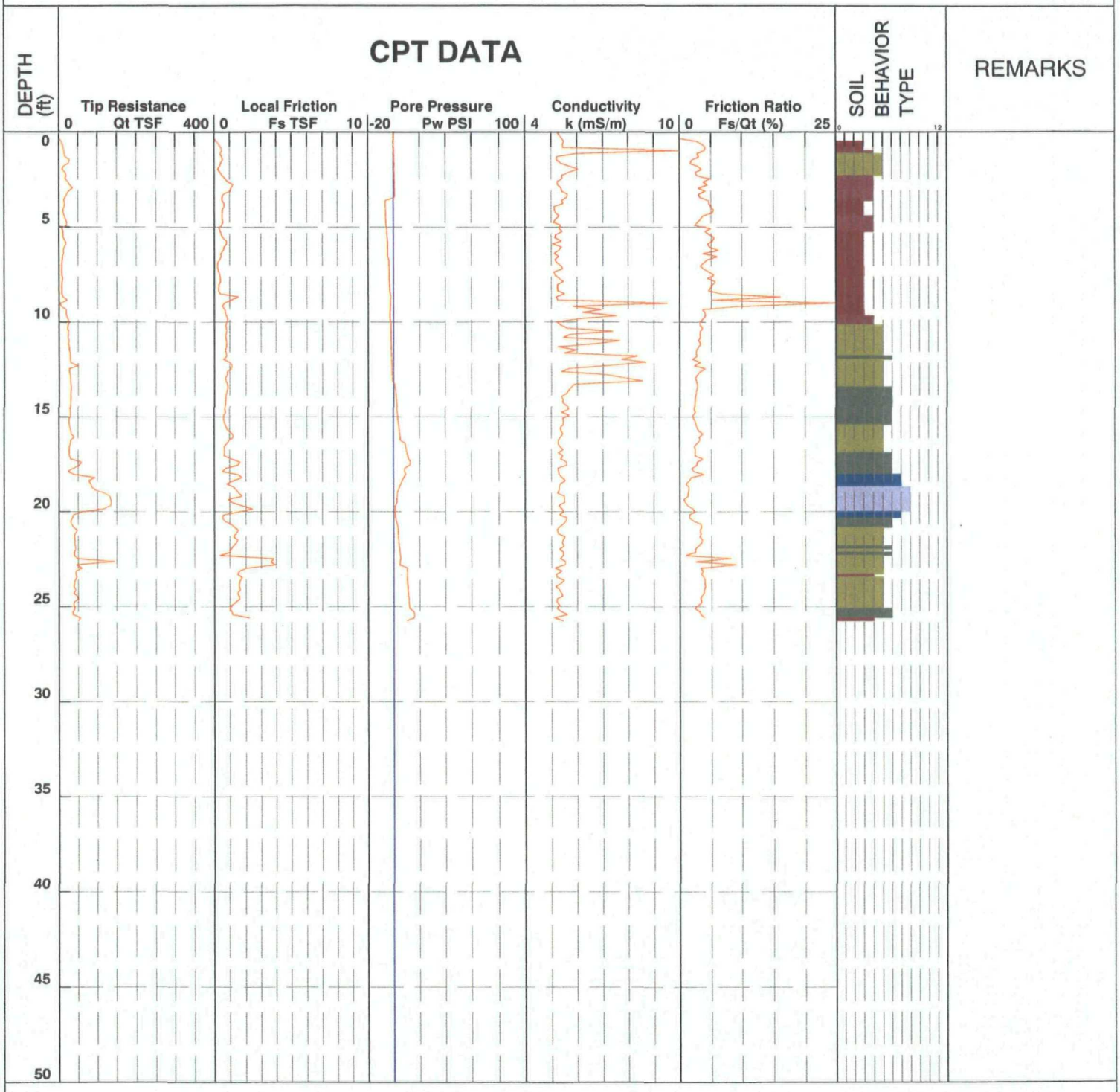

AECOM

CPT-ML-30 | 60095184 | SBB-B61

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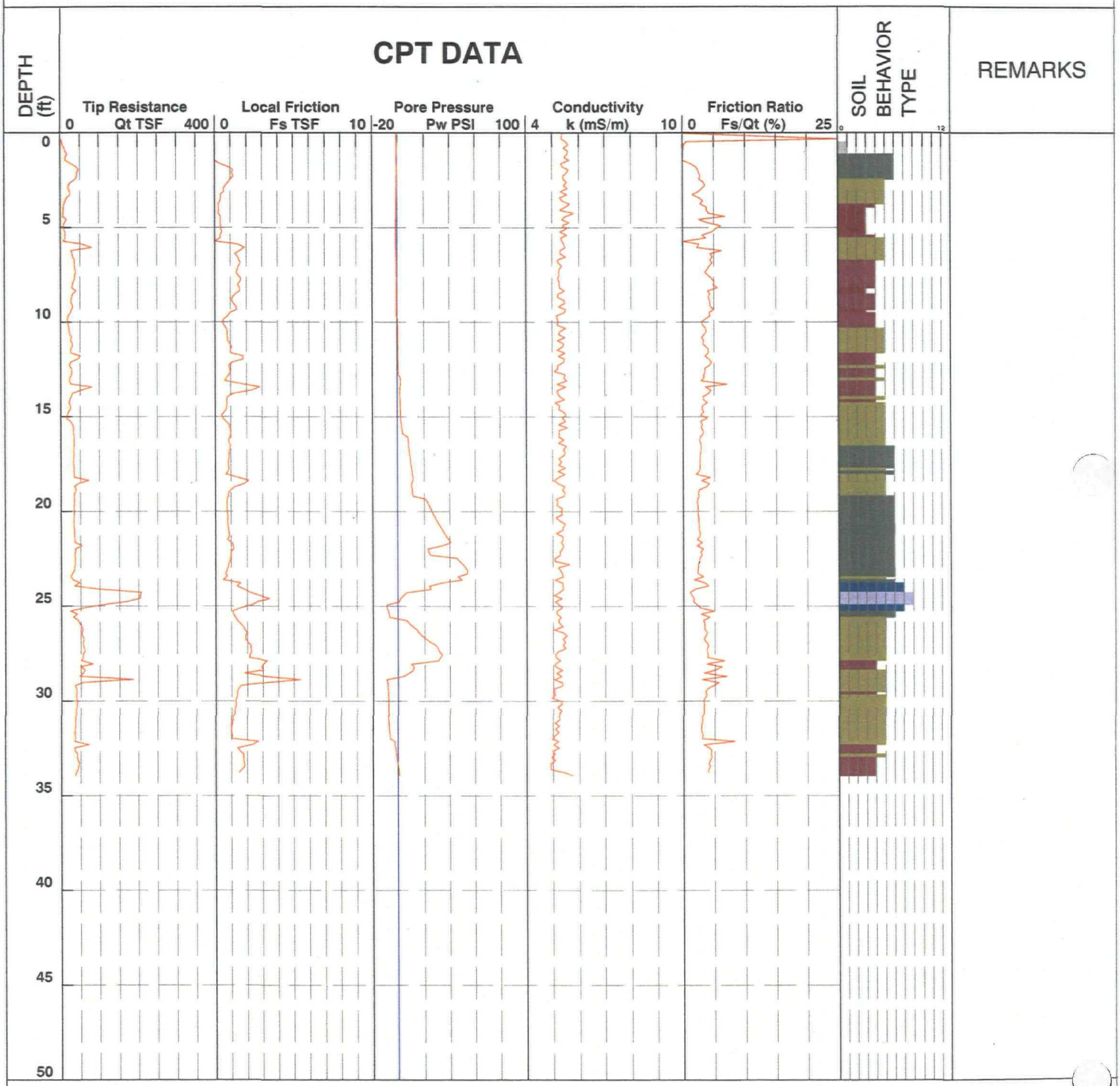

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3 - clay
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5 - clayey silt to silty clay
6 - sandy silt to clayey silt
7 - silty sand to sandy silt
8 - sand to silty sand
9 - sand
10 - gravelly sand to sand
11 - very stiff fine grained (*)
12 - sand to clayey sand (*)

AECOM

CPT-ML-31 | 60095184 | SBB-B61

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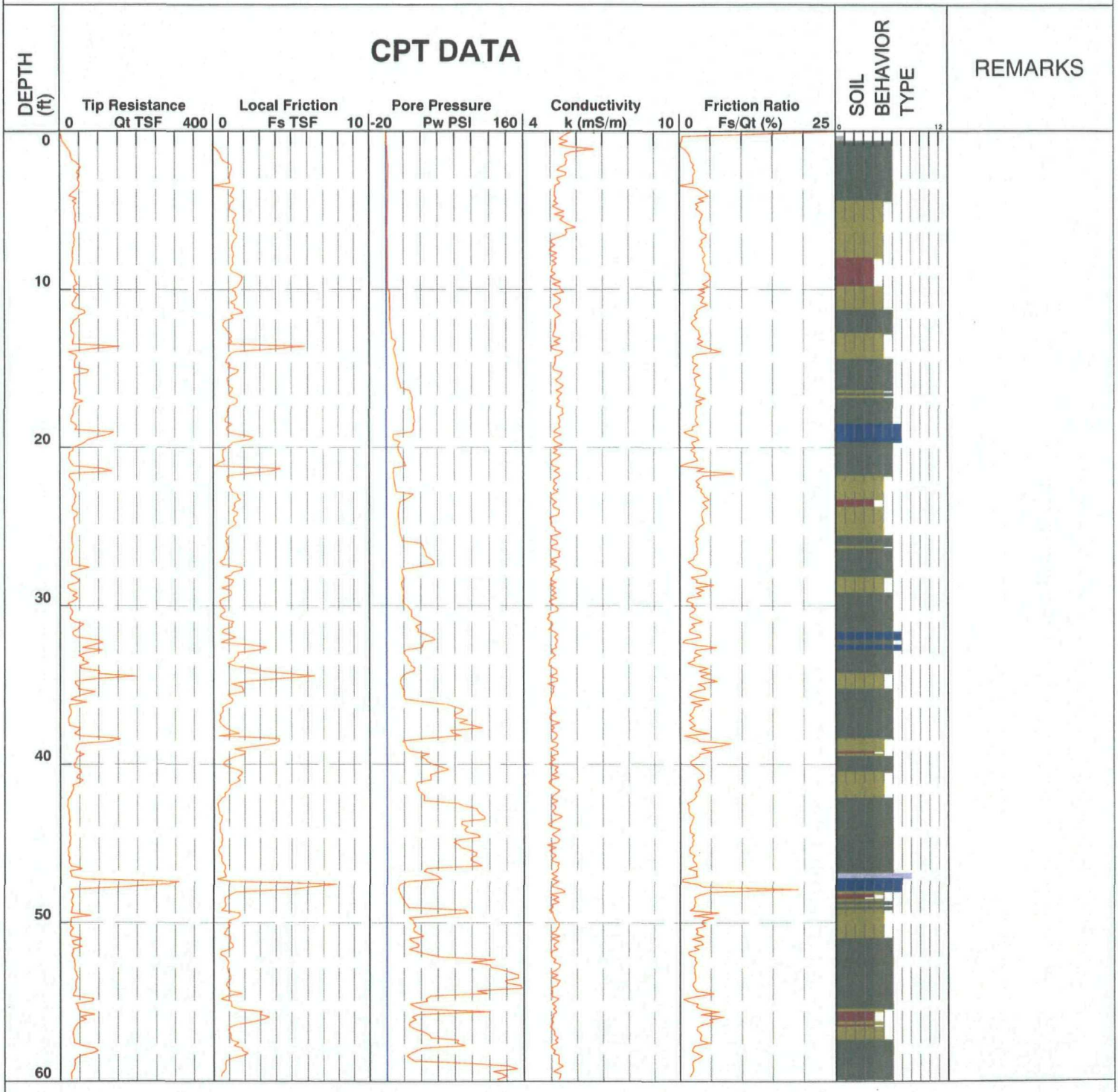

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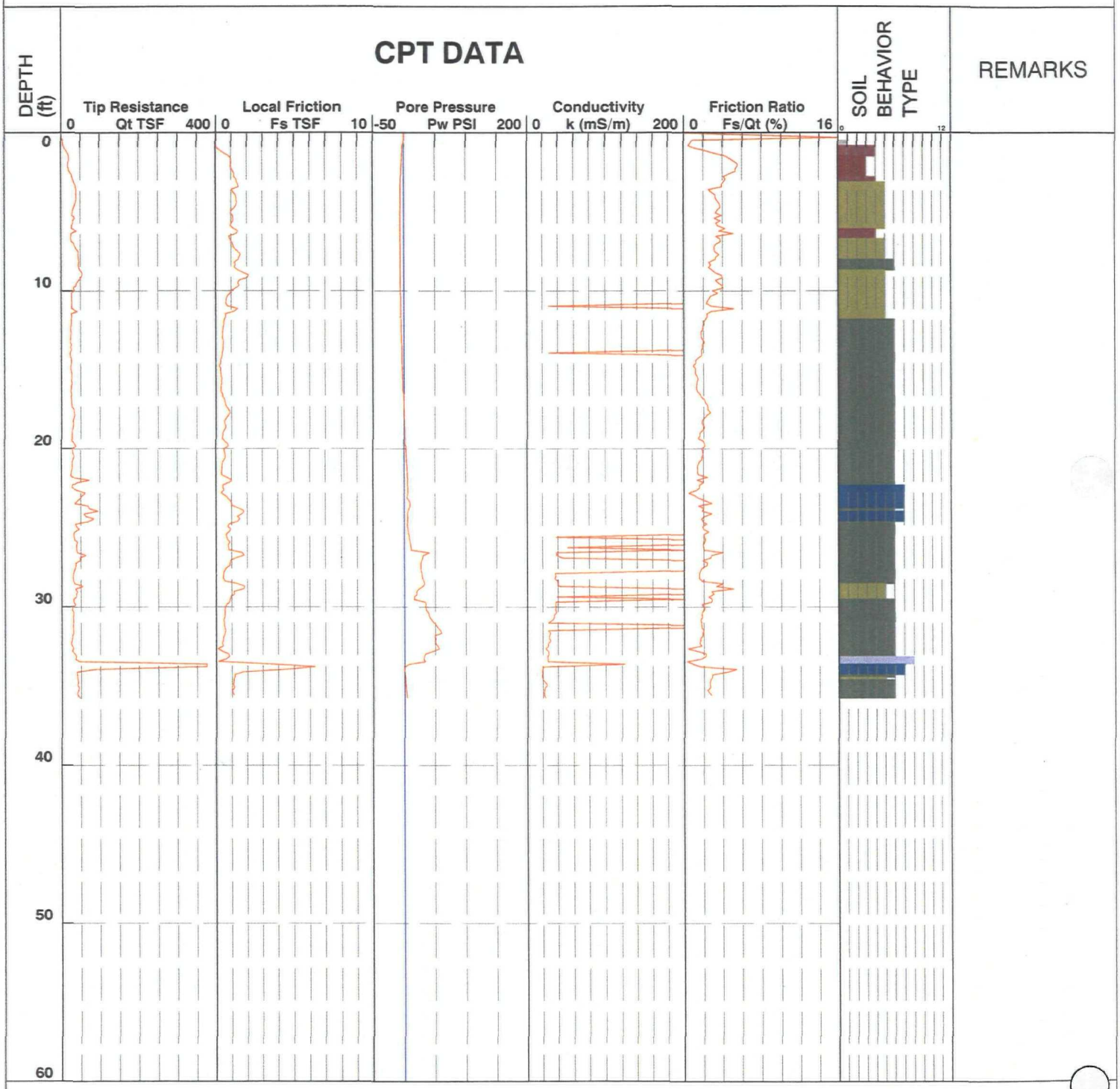

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12 - sand to clayey sand (*)

AECOM

CPT-ML-33 | 60095184 | SBB-B61

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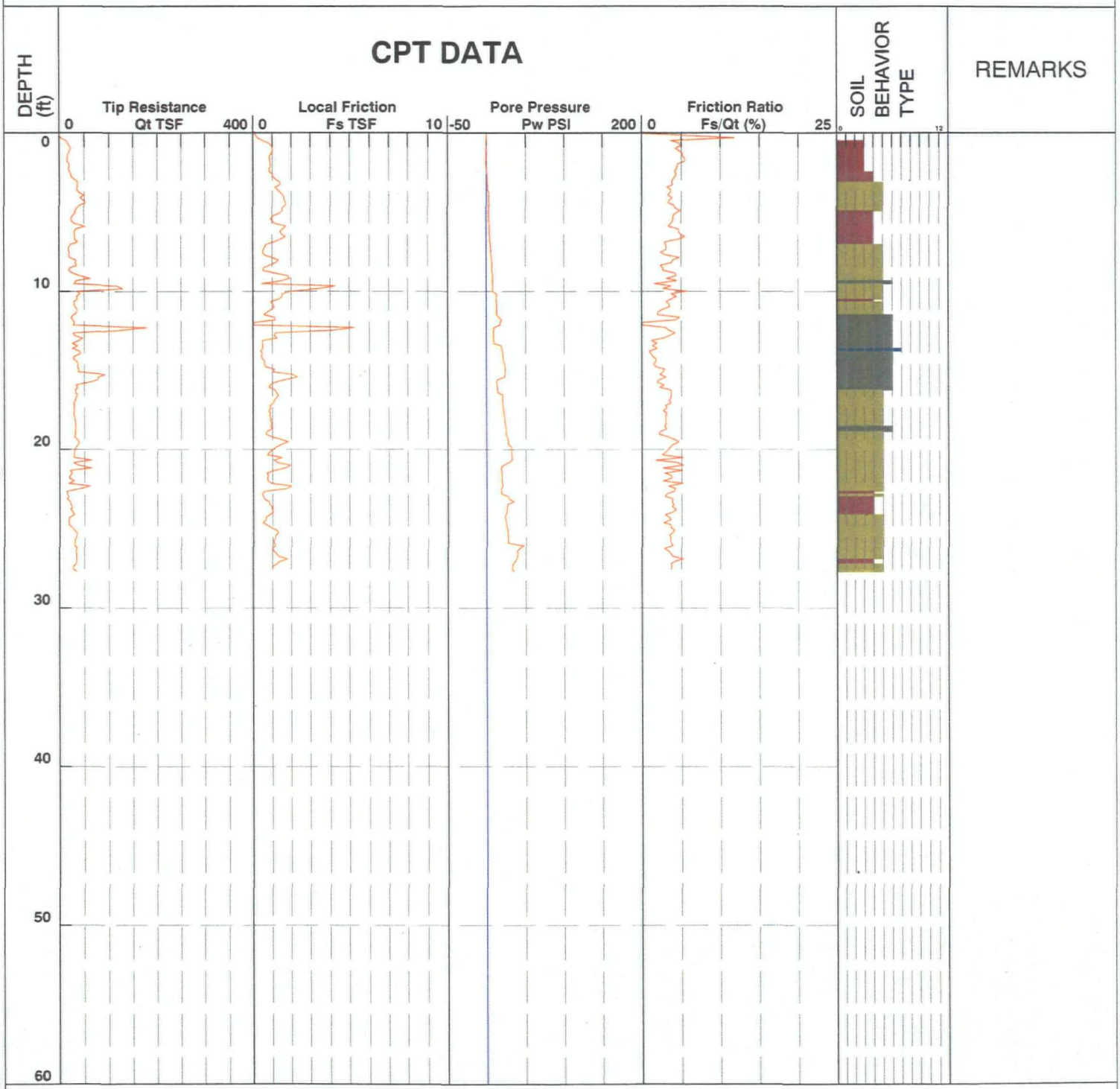
CPT DATA



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6 - sandy silt to clayey silt
7 - silty sand to sandy silt
8 - sand to silty sand
9 - sand
10 - gravelly sand to sand
11 - very stiff fine grained (*)
12 - sand to clayey sand (*)

AECOM

CPT-ML-34 | 60095184 | SBB-B61

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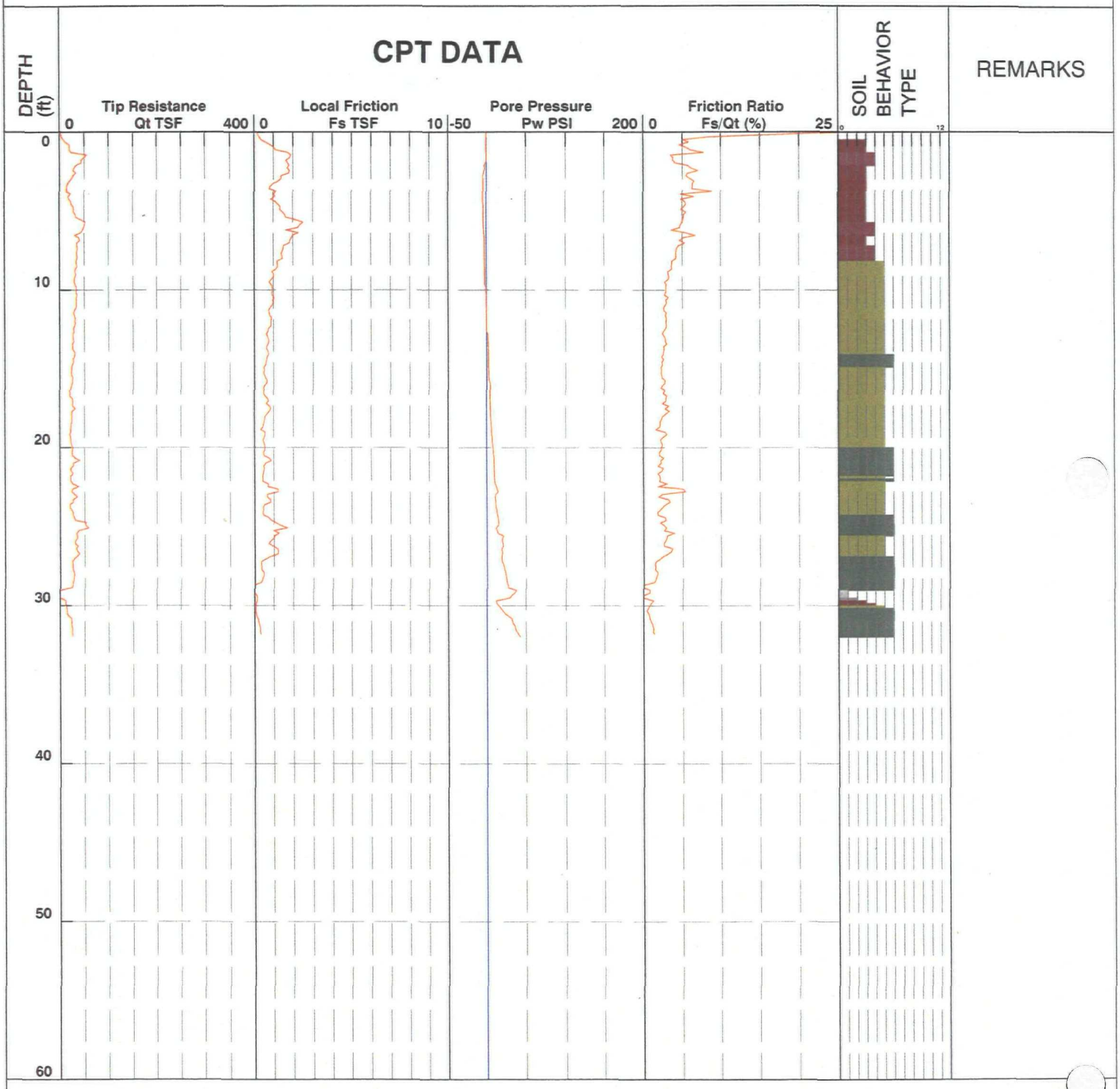

AECOM

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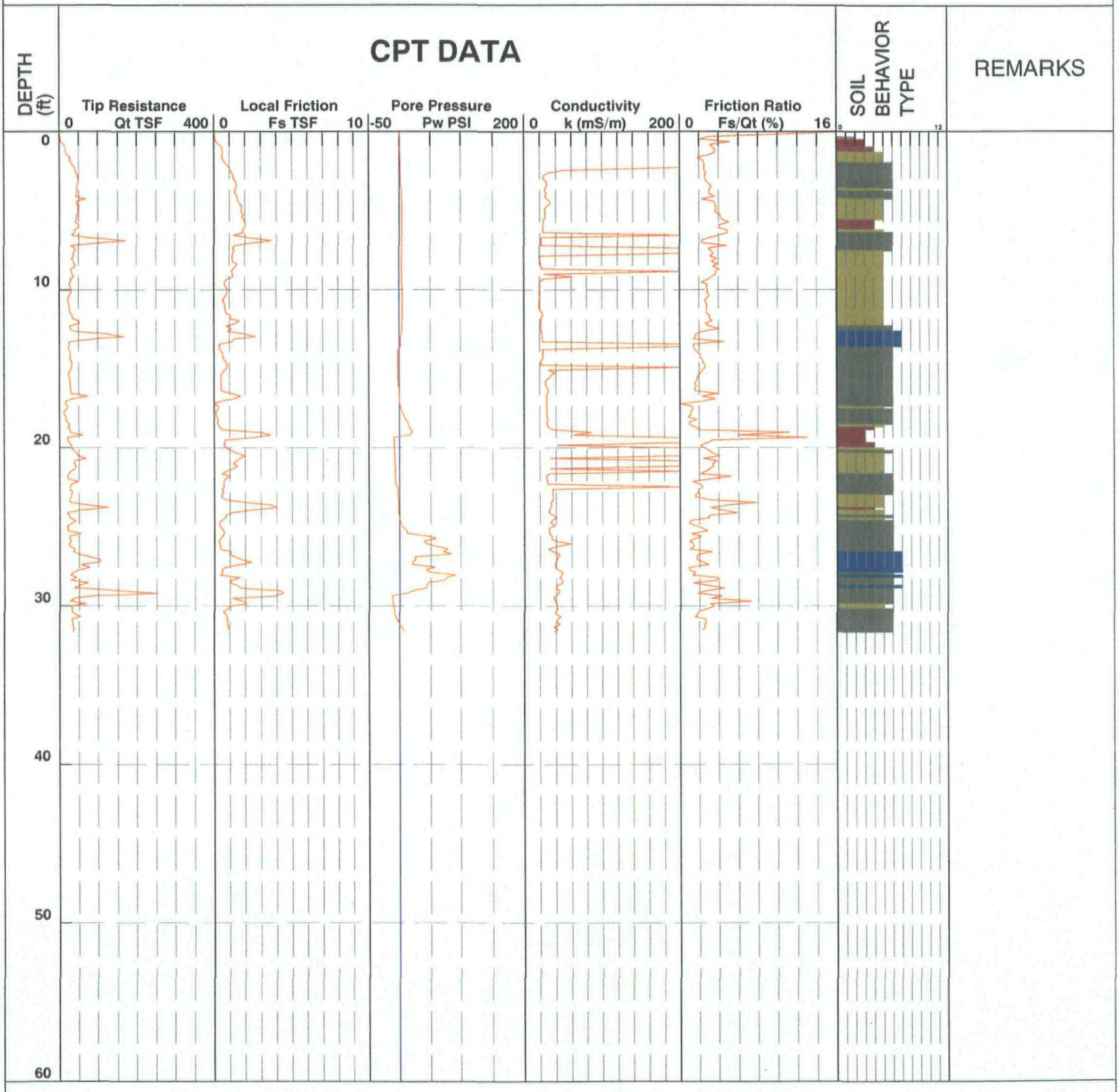

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7 - silty sand to sandy silt
8 - sand to silty sand
9 - sand
10 - gravelly sand to sand
11 - very stiff fine grained (*)
12 - sand to clayey sand (*)

STS Consultants Ltd.

CLIENT: **Allied Waste Systems**	LOG OF BORING NUMBER: **ML-25D**
PROJECT NAME: **Mallard Lake Landfill**	ARCHITECT-ENGINEER:
SITE LOCATION: **Greenbrook School**	

SURFACE ELEVATION +787.1

DEPTH-(FT) / ELEVATION(FT)	SAMPLE NO.	SAMPLE TYPE	SAMPLE DISTANCE	RECOVERY	DESCRIPTION OF MATERIAL	UNIT DRY WT. LBS./FT.³
					Blind drill to 56 ft. Refer to ML-25 CPT log for soil description.	
60.0	1	SS			Clayey silt - trace gravel, sand - gray - moist (ML)	
	2	SS				
	3	SS			clayey gravelly sand - gray, green - moist (SC/CL)	
	4	SS			Silty clay - trace sand - gray - moist (CL)	
	5	SS				
65.0	6	SS				
	7	SS				
70.0	8	SS				
72.5	9	SS			End of boring	

UNCONFINED COMPRESSIVE STRENGTH TONS/FT.² (1, 2, 3, 4, 5)

PLASTIC LIMIT % / WATER CONTENT % / LIQUID LIMIT % (10, 20, 30, 40, 50)

STANDARD PENETRATION BLOWS/(FT) (10, 20, 30, 40, 50)

The stratification lines represent the approximate boundary lines between soil types: in situ, the transition may be gradual.

WL	BORING STARTED 4/1/09	STS OFFICE AECOM - Chicago	
WL	BORING COMPLETED 4/1/09	ENTERED BY PMB	SHEET NO. 1 OF 1
WL	RIG/FOREMAN B-61/M. Baker	APP'D BY CSR	STS JOB NO. 13069-002

BORING_LOG 13069002.GPJ STS.GDT 9/9/09

STS Consultants Ltd.

CLIENT: **Allied Waste Systems**	LOG OF BORING NUMBER: **ML-25I**
PROJECT NAME: **Mallard Lake Landfill**	ARCHITECT-ENGINEER:
SITE LOCATION: **Greenbrook School**	

UNCONFINED COMPRESSIVE STRENGTH TONS/FT.² (1, 2, 3, 4, 5)

PLASTIC LIMIT % / WATER CONTENT % / LIQUID LIMIT % (10, 20, 30, 40, 50)

STANDARD PENETRATION BLOWS/(FT) (10, 20, 30, 40, 50)

DEPTH(FT)	ELEVATION(FT)	SAMPLE NO.	SAMPLE TYPE	SAMPLE DISTANCE	RECOVERY	DESCRIPTION OF MATERIAL	UNIT DRY WT. LBS./FT.³
						SURFACE ELEVATION +787.4	
5.0		1				Blind drill to 45 ft. Refer to ML-25 CPT log for soil description.	
10.0							
15.0							
20.0							
25.0							
30.0							
35.0							
40.0							
45.0							
						End of boring	

The stratification lines represent the approximate boundary lines between soil types: in situ, the transition may be gradual.

WL	BORING STARTED 4/4/09	STS OFFICE AECOM - Chicago	
WL	BORING COMPLETED 4/4/09	ENTERED BY PMB	SHEET NO. 1 OF 1
WL	RIG/FOREMAN B-61/M. Baker	APP'D BY CSR	STS JOB NO. 13069-002

BORING LOG 13069002.GPJ STS.GDT 9/9/09

STS Consultants Ltd.

CLIENT: **Allied Waste Systems**

LOG OF BORING NUMBER: **ML-25S**

PROJECT NAME: **Mallard Lake Landfill**

ARCHITECT-ENGINEER:

SITE LOCATION: **Greenbrook School**

DEPTH(FT) / ELEVATION(FT)	SAMPLE NO.	SAMPLE TYPE	SAMPLE DISTANCE	RECOVERY	DESCRIPTION OF MATERIAL	UNIT DRY WT. LBS./FT.³	UNCONFINED COMPRESSIVE STRENGTH TONS/FT.² (1 2 3 4 5) / PLASTIC LIMIT % / WATER CONTENT % / LIQUID LIMIT % (10 20 30 40 50) / STANDARD PENETRATION BLOWS/(FT) (10 20 30 40 50)
					SURFACE ELEVATION +787.4		
5.0	1				Blind drill to 32 ft. Refer to ML-25 CPT log for soil descriptions.		
10.0							
15.0							
20.0							
25.0							
30.0							
32.0					End of boring		

The stratification lines represent the approximate boundary lines between soil types: in situ, the transition may be gradual.

WL	BORING STARTED 4/2/09	STS OFFICE AECOM - Chicago	
WL	BORING COMPLETED 4/2/09	ENTERED BY PMB	SHEET NO. 1 OF 1
WL	RIG/FOREMAN B-61/M. Baker	APP'D BY CSR	STS JOB NO. 13069-002

BORing LOG 13069002.GPJ STS.GDT 9/9/09

Appendix B

Non-CPT Installed Monitoring Probe Details

Illinois Environmental Protection Agency — Well Completion Report

Site Number: 0438010004 County: DuPage

Site Name: Mallard Lake Landfill #2 Well #: ML-25S

State Plane Coordinate: X ____ Y ____ (or) Latitude: ° ' " Longitude: ° ' "

Borehole #: ML-25S

Site Coordinates: 1835.48E 5908.50N

Surveyed by: Weaver Boos Consultants IL Registration #:

Drilling Contractor: Subsurface Exploration Inc. Driller: Mark Baker

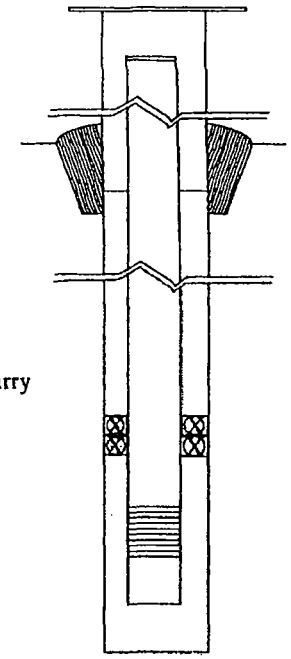
Consulting Firm: AECOM Geologist: Matt Weiss

Drilling Method: 3 7/8" Wash Rotary Tricone Bit Drilling Fluid (Type): Potable Water

Logged By: Matt Weiss Date Started: 4/2/09 Date Finished: 4/2/09

Report Form Completed By: Matt Weiss Date: 4/14/09

ANNULAR SPACE DETAILS



Type of Surface Seal: Concrete

Type of Annular Sealant: High Solids Bentonite Grout

Installation Method: Tremmie

Setting Time: 24 hours

Type of Bentonite Seal - - Granular, Pellet, Slurry (Choose One)

Installation Method: Gravity

Setting Time: 1 Hour

Type of Sand Pack: Coarse Silica Sand

Grain Size: 5 (Sieve Size)

Installation Method: Gravity

Type of Backfill Material: N/A (if applicable)

Installation Method:

	Elevations (MSL)*	Depths (BGS)	(.01ft.)
Top of Protective Casing	787.40	0	
Top of Riser Pipe	786.90	0.50	
Ground Surface	787.40	0	
Top of Annular Sealant	786.6	0.8	
Static Water Level (After Completion)	773.72	13.68	
Top of Seal	764.4	23.0	
Top of Sand Pack	762.4	25.0	
Top of Screen	760.4	27.0	
Bottom of Screen	755.6	31.8	
Bottom of Well	755.4	32.0	
Bottom of Borehole	755.4	32.0	

* Referenced to a National Geodetic Datum

WELL CONSTRUCTION MATERIAL

(Choose one type of material for each area)

Protective Casing	SS304, SS316, PTFE, PVC, or Other
Riser Pipe Above W.T.	SS304, SS316, PTFE, PVC, or Other
Riser Pipe Below W.T.	SS304, SS316, PTFE, PVC, or Other
Screen	SS304, SS316, PTFE, PVC, or Other

CASING MEASURMENTS

Diameter of Borehole (inches)	4.0
ID of Riser Pipe (inches)	0.75
Protective Casing Length (feet)	0.8
Riser Pipe Length (feet)	5.0
Bottom of Screen to End Cap (feet)	0.2
Screen Length (1" slot to last slot) (feet)	4.8
Total Length of Casing (feet)	26.5
Screen Slot Size **	0.010

**Hand-Slotted Well Screens are Unacceptable

Illinois Environmental Protection Agency — Well Completion Report

Site Number: 0438010004 County: DuPage

Site Name: Mallard Lake Landfill #2 Well #: ML-25D

State Plane Coordinate: X ____ Y ____ (or) Latitude: ° ' " Longitude: ° ' "

Borehole #: ML-25D

Site Coordinates 1838.47E 5910.06N

Surveyed by: Weaver Boos Consultants IL Registration #:

Drilling Contractor: Subsurface Exploration Inc. Driller: Mark Baker

Consulting Firm: AECOM Geologist: Matt Weiss

Drilling Method: 3 1/4" ID HSA Drilling Fluid (Type): N/A

Logged By: Matt Weiss Date Started: 4/1/09 Date Finished: 4/1/09

Report Form Completed By: Matt Weiss Date: 4/14/09

ANNULAR SPACE DETAILS

Type of Surface Seal: Concrete

Type of Annular Sealant: High Solids Bentonite Grout

Installation Method: Tremmie

Setting Time: 24 Hours

Type of Bentonite Seal - - Granular, Pellet, Slurry (Choose One)

Installation Method: Gravity

Setting Time: 1 Hour

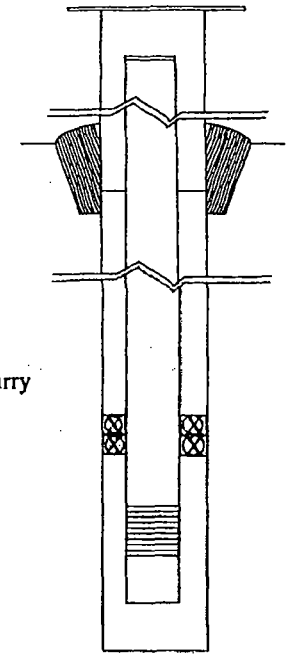
Type of Sand Pack: Coarse Silica Sand

Grain Size: 5 (Sieve Size)

Installation Method: Gravity

Type of Backfill Material: N/A (if applicable)

Installation Method: N/A



Elevations (MSL)*	Depths (BGS)	(.01ft.)
787.12	0	Top of Protective Casing
786.67	0.45	Top of Riser Pipe
787.12	0	Ground Surface
786.32	0.8	Top of Annular Sealant
753.01	34.11	Static Water Level (After Completion)
729.1	58	Top of Seal
727.1	60	Top of Sand Pack
724.6	62.5	Top of Screen
714.8	72.3	Bottom of Screen
714.6	72.5	Bottom of Well
714.6	72.5	Bottom of Borehole

* Referenced to a National Geodetic Datum

WELL CONSTRUCTION MATERIAL

(Choose one type of material for each area)

Protective Casing	SS304, SS316, PTFE, PVC, or Other
Riser Pipe Above W.T.	SS304, SS316, PTFE, PVC, or Other
Riser Pipe Below W.T.	SS304, SS316, PTFE, PVC, or Other
Screen	SS304, SS316, PTFE, PVC, or Other

CASING MEASURMENTS

Diameter of Borehole (inches)	7.0
ID of Riser Pipe (inches)	0.75
Protective Casing Length (feet)	0.8
Riser Pipe Length (feet)	5.0
Bottom of Screen to End Cap (feet)	0.2
Screen Length (1st slot to last slot) (feet)	9.8
Total Length of Casing (feet)	62.05
Screen Slot Size **	0.010

**Hand-Slotted Well Screens are Unacceptable

Illinois Environmental Protection Agency — Well Completion Report

Site Number: 0438010004 County: DuPage

Site Name: Mallard Lake Landfill #2 Well #: ML-25I

State Plane Coordinate: X ____ Y ____ (or) Latitude: ___ ___ ___ Longitude: ___ ___ ___ Borehole #: ML-25I

Site Coordinates: 1834.55E 5913.88N

Surveyed by: Weaver Boos Consultants IL Registration #:

Drilling Contractor: Subsurface Exploration Inc. Driller: Mark Baker

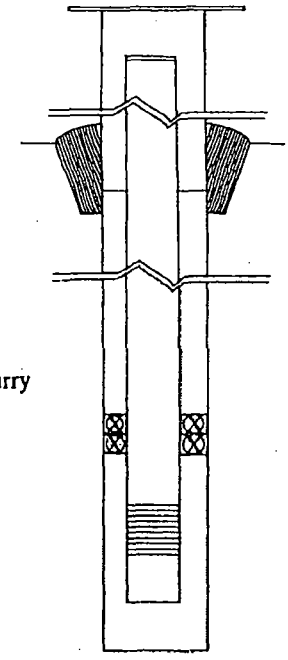
Consulting Firm: AECOM Geologist: Matt Weiss

Drilling Method: 3 7/8" Wash Rotary Tricone Bit Drilling Fluid (Type): Potable Water

Logged By: Matt Weiss Date Started: 4/4/09 Date Finished: 4/4/09

Report Form Completed By: Matt Weiss Date: 4/14/09

ANNULAR SPACE DETAILS



	Elevations (MSL)*	Depths (BGS)	(.01ft.)
	787.48	0.0	Top of Protective Casing
	786.94	0.50	Top of Riser Pipe
	787.43	0	Ground Surface
	786.63	0.8	Top of Annular Sealant
			Static Water Level (After Completion)
	751.4	36.0	Top of Seal
	749.4	38.0	Top of Sand Pack
	747.4	40.0	Top of Screen
	742.6	44.8	Bottom of Screen
	742.4	45.0	Bottom of Well
	742.4	45.0	Bottom of Borehole

* Referenced to a National Geodetic Datum

Type of Surface Seal: Concrete

Type of Annular Sealant: High Solids Bentonite Grout

Installation Method: Tremmie

Setting Time: 24 hours

Type of Bentonite Seal - - Granular, Pellet, Slurry (Choose One)

Installation Method: Gravity

Setting Time: 1 Hour

Type of Sand Pack: Coarse Silica Sand

Grain Size: 5 (Sieve Size)

Installation Method: Gravity

Type of Backfill Material: N/A (if applicable)

Installation Method:

WELL CONSTRUCTION MATERIAL

(Choose one type of material for each area)

Protective Casing	SS304, SS316, PTFE, PVC, or Other
Riser Pipe Above W.T.	SS304, SS316, PTFE, PVC, or Other
Riser Pipe Below W.T.	SS304, SS316, PTFE, PVC, or Other
Screen	SS304, SS316, PTFE, PVC, or Other

CASING MEASURMENTS

Diameter of Borehole (inches)	4.0
ID of Riser Pipe (inches)	0.75
Protective Casing Length (feet)	0.8
Riser Pipe Length (feet)	5.0
Bottom of Screen to End Cap (feet)	0.2
Screen Length (1st slot to last slot) (feet)	4.8
Total Length of Casing (feet)	39.5
Screen Slot Size **	0.010

**Hand-Slotted Well Screens are Unacceptable

C

Appendix C

Probe Monitoring Results

Appendix C
Gas Probe Monitoring Results
Greenbrook School Nature and Extent Characterization
Mallard Lake Landfill
AECOM Project No. 60139758.1800

Probe	Date	Time of measurement	Static Pressure (inches H2O)	Methane (%)	Carbon Dioxide (%)	Oxygen (%)	Balance Gas (%)	Post Purge Pressure (inches H2O)	Depth to Water (bMV)	Elevation of Groundwater Surface (ft MSL)	Qualifier
ML-06D	2/2/2008	11:20	0.0	0.0	0.0	20.8	79.2	NM	NM	NM	Open hole to terminal depth
ML-06D	2/16/2008	14:40	NM	NM	NM	NM	NM	NM	43.68	748.88	
ML-06D	4/15/2008	17:03	NM	1.5	0.1	20.3	78.0	NM	39.75	752.81	
ML-06D	6/26/2008	7:30	0.0	14.5	1.1	17.2	67.2	NM	39.46	753.10	
ML-06D	6/27/2008	7:32	0.0	0.2	0.0	20.6	79.2	NM	39.28	753.28	
ML-06D	7/1/2008	12:20	0.2	0.8	0.0	20.5	78.8	NM	NM	NM	2 hour summa canister collected
ML-06D	7/8/2008	15:35	0.0	0.7	0.1	20.5	78.7	NM	39.7	752.86	
ML-06D	7/14/2008	15:40	0.0	1.1	0.1	20.5	78.2	NM	40.07	752.49	
ML-06D	7/24/2008	9:42	0.0	3.1	0.4	19.8	76.8	NM	NM	NM	2 hour Summa canister collected
ML-06D	7/29/2008	15:00	0.0	1.1	0.2	20.5	78.3	NM	40.90	751.66	
ML-06D	8/5/2008	15:57	0.0	1.0	0.2	20.3	78.5	NM	41.43	751.13	
ML-06D	8/19/2008	17:05	0.0	2.7	0.3	19.9	77.1	NM	42.27	750.29	
ML-06D	8/29/2008	9:35	0.0	19.7	1.8	15.3	63.2	NM	42.44	750.12	
ML-06D	9/2/2008	8:30	0.0	21.5	2.2	12.6	63.5	NM	NM	NM	Gas composition only
ML-06D	9/5/2008	10:15	0.0	4.9	0.5	19.6	74.8	NM	42.75	749.81	
ML-06D	9/9/2008	11:53	0.1	8.4	1.0	18.4	72.1	-30.3	43.22	749.34	
ML-06D	10/6/2008	16:58	0.0	16.2	1.4	16.6	66.1	-33.2	41.04	751.52	
ML-06D	10/17/2008	16:35	0.1	19.0	1.7	15.9	63.5	-37.4	40.69	751.87	
ML-06D	10/31/2008	15:23	0.1	21.5	2.0	14.3	62.0	-37.5	40.32	752.24	
ML-06D	12/3/2008	7:55	8.0	52.5	4.4	5.8	37.1	-61.0	40.21	752.35	
ML-06D	12/23/2008	10:32	0.0	6.5	0.9	18.2	74.5	-55.1	39.10	753.46	
ML-06D	1/9/2009	11:07	-1.0	4.1	0.5	19.2	76.2	-34.6	37.60	754.96	
ML-06D	1/26/2009	16:27	0.0	6.1	0.7	18.2	75.1	-31.6	39.37	753.19	
ML-06D	2/9/2009	8:07	10.0	17.3	2.0	10.9	69.8	-50.3	38.11	754.45	
ML-06D	2/17/2009	15:14	0.2	5.2	1.0	17.3	76.3	-60.9	36.10	756.46	
ML-06D	3/4/2009	12:45	0.0	6.3	1.0	15.8	76.9	-57.1	37.19	755.37	
ML-06D	3/17/2009	8:23	0.0	4.0	1.0	17.4	77.6	-74.8	34.28	758.28	
ML-06D	4/8/2009	09:38	0.0	0.5	0.4	19.8	79.3	-45.0	32.58	759.98	
ML-06D	4/21/2009	10:45	0.0	0.6	0.6	19.1	79.7	-64.0	33.62	758.94	
ML-06D	5/6/2009	13:49	1.4	0.6	0.4	19.8	79.2	-53.0	34.90	757.66	
ML-06D	5/29/2009	17:24	0.1	0	0	20.7	79.3	-11.4	NM	NM	
ML-06D	6/3/2009	16:45	0.0	0.0	0.0	20.2	79.8	-6.8	36.42	756.14	
ML-06D	7/23/2009	11:07	0.7	0.0	0.1	20.3	79.6	-29.8	NM	NM	
6D	8/13/2009	13:50	0.0	0.0	0.1	20.2	79.7	-18.4	37.55	755.01	
6I	9/3/2008	11:00	NM	0.4	0.9	20.8	77.9	NM	NM	NM	Open hole to 44 ft bgs
-06I	9/5/2008	10:00	0.1	80.1	10.7	0.1	9.2	NM	40.73	751.39	10 min purge
ML-06I	9/9/2008	11:19	0.1	79.3	11.8	0.0	8.9	-9.0	39.85	752.30	
ML-06I	10/6/2008	17:15	23.7	79.2	11.9	0.0	9.0	-12.4	dry to 47.05	<745.07	
ML-06I	10/17/2008	16:47	24.2	79.2	12.0	0.0	8.7	-8.8	dry to 47.05	<745.07	
ML-06I	10/24/2008	12:45	29.7	79.1	11.8	0.0	9.1	NM	NM	NM	1 hour summa can collected
ML-06I	10/31/2008	15:35	31.0	74.5	11.3	0.8	13.4	-19.7	41.05	751.07	
ML-06I	12/3/2008	7:46	32.6	80.4	12.9	0.0	6.6	-5.0	dry to 41.05	<751.10	
ML-06I	1/9/2009	11:16	1.2	34.7	5.8	11.6	48.2	-23.5	35.55	756.60	
ML-06I	1/26/2009	16:19	3.5	77.7	12.6	1.6	8.3	-19.2	37.13	755.02	
ML-06I	2/10/2009	15:13	18.0	86.7	13.1	0.0	0.2	-9.5	38.89	753.26	
ML-06I	2/17/2009	15:07	18.8	80.4	12.8	0.0	6.9	-13.3	38.43	753.72	
ML-06I	3/4/2009	12:35	9.5	55.9	8.5	5.5	69.9	-21.7	38.19	753.96	
ML-06I	3/17/2009	8:15	2.7	72.2	10.3	3.1	14.4	-32.6	35.95	756.20	
ML-06I	4/8/2009	09:34	14.7	81.7	11.7	0.0	6.7	-8.1	36.69	755.46	
ML-06I	4/21/2009	10:40	0.6	82.7	8.5	0.1	8.8	-32.2	34.48	757.67	
ML-06I	5/6/2009	13:55	0.0	60.7	6.9	0.5	31.9	-8.2	34.80	757.35	
ML-06I	5/29/2009	17:20	0.2	25	7.2	5.2	64.5	-20.0	NM	NM	
ML-06I	6/3/2009	16:40	0.0	9.1	8.5	4.5	77.9	-2.7	34.20	757.35	
ML-06I	7/23/2009	11:16	0.0	4.5	5.2	15.0	75.3	-15.2	NM	NM	
ML-06I	8/13/2009	13:20	0.0	0.8	3.2	17.7	78.3	-17.6	35.55	756.60	
ML-06S	9/3/2008	14:00	0.0	0.0	0.2	21.4	78.4	NM	NM	NM	Immediately after probe completion
ML-06S	9/5/2008	10:15	0.0	1.3	4.3	18.2	76.2	NM	dry to 14.20	<778.02	10 min purge
ML-06S	9/9/2008	11:40	0.0	1.6	4.7	14.7	79.0	-11.5	dry to 14.20	<778.02	
ML-06S	10/6/2008	17:22	0.0	0.0	5.5	8.0	86.4	-14.1	dry to 14.22	<778.00	
ML-06S	10/17/2008	16:27	0.0	0.0	5.1	8.6	86.3	-12.5	dry to 14.23	<777.99	
ML-06S	10/31/2008	15:18	0.0	0.0	5.0	8.7	86.2	-14.7	dry to 14.22	<778.00	
ML-06S	12/3/2008	7:40	0.0	0.0	5.3	3.5	91.0	-13.5	dry to 14.22	<778.00	
ML-06S	1/9/2009	10:54	0.0	0.0	4.3	11.3	84.4	-14.2	dry to 14.22	<778.00	
ML-06S	1/26/2009	16:11	0.0	0.0	4.2	12.8	82.9	-12.6	dry to 14.22	<778.00	
ML-06S	2/10/2009	15:08	0.0	0.0	4.0	12.5	83.5	-28.9	dry to 14.24	<777.98	
ML-06S	2/17/2009	15:02	0.0	0.0	3.5	13.9	82.6	-22.2	dry to 14.22	<778.00	
ML-06S	3/4/2009	12:25	0.0	0.0	3.6	15.4	81.0	-5.4	Dry to 14.21	<778.01	
ML-06S	3/17/2009	8:08	0.0	0.0	4.0	15.3	80.7	-6.8	dry to 14.22	<778.00	
ML-06S	4/8/2009	09:25	0.7	0.0	3.4	14.8	81.8	-31.5	8.20	784.02	
ML-06S	4/21/2009	10:35	-6.1	0.0	4.2	10.8	85.0	-42.2	5.65	786.57	
ML-06S	6/3/2009	16:50	0.0	0.0	8.4	2.8	88.8	0.0	Dry to 14.21	<778.01	
ML-06S	7/23/2009	11:15	1.0	0.0	8.4	12.7	78.8	-14.7	NM	NM	
-06S	8/13/2009	13:42	0.0	0.0	7.5	14.9	77.6	-7.3	Dry to 14.21	<778.01	
8D	12/22/2008	12:39	0.0	0.0	0.0	19.1	80.9	-29.2	40.66	750.34	
8D	2/10/2009	8:53	2.0	0.0	0.1	19.7	80.2	-57.1	35.58	755.42	
ML-08D	3/4/2009	11:55	0.0	0.0	0.1	20.9	79.0	0.0	38.72	752.28	
ML-08D	4/8/2009	15:30	NM	NM	NM	NM	NM	NM	37.60	753.40	
ML-08D	6/4/2009	13:50	0.0	0.0	0.0	20.2	79.8	-5.4	38.30	752.70	

Appendix C
Gas Probe Monitoring Results
Greenbrook School Nature and Extent Characterization
Mallard Lake Landfill
AECOM Project No. 60139758.1800

Probe	Date	Time of measurement	Static Pressure (inches H2O)	Methane (%)	Carbon Dioxide (%)	Oxygen (%)	Balance Gas (%)	Post Purge Pressure (inches H2O)	Depth to Water (bMV)	Elevation of Groundwater Surface (ft MSL)	Qualifier
ML-08D	8/13/2009	11:41	0.2	0.1	0.0	20.6	79.3	-10.1	38.80	752.20	
ML-08I	12/22/2008	12:30	0.0	75.0	21.1	0.0	3.9	-13.7	Dry to 38.00	<752.81	
ML-08I	2/10/2009	9:01	0.0	0.0	0.2	20.5	79.3	0.0	9.33	781.48	
ML-08I	3/4/2009	11:50	0.0	36.8	10.6	10.1	42.5	-1.4	35.21	755.60	
ML-08I	4/8/2009	15:40	1.2	58.1	16.3	4.3	23.4	NM	34.40	756.41	
ML-08I	5/6/2009	13:43	1.4	38.0	10.4	10.1	41.5	0.0	34.22	756.59	
ML-08I	5/29/2009	17:06	0.9	46.5	13.1	7	33.3	-10.1	NM	NM	
ML-08I	6/4/2009	13:48	1.2	49.6	14.1	6.2	30.0	-10.8	33.38	757.43	
ML-08I	8/13/2009	11:33	0.9	43.4	10.8	8.7	37.1	-7.4	32.40	758.41	
ML-08S	12/22/2008	12:35	0.0	0.0	0.1	20.1	79.8	-18.0	3.66	787.30	
ML-08S	2/10/2009	8:45	-1.0	0.0	0.2	19.3	80.5	-5.4	2.47	788.49	
ML-08S	3/4/2009	11:40	0.0	0.0	0.1	20.9	79.0	-4.1	3.11	787.85	
ML-08S	4/8/2009	15:50	-2.6	0.0	0.1	20.3	77.6	-21.3	2.50	788.46	
ML-08S	6/4/2009	13:47	0.0	0.0	0.1	20.3	79.6	-29.9	5.69	785.27	
ML-08S	8/13/2009	11:28	0.1	0.0	3.1	17.6	79.3	-3.4	7.84	783.12	
ML-09D	12/22/2008	13:25	-0.2	0.0	0.0	20.1	79.9	-12.9	31.25	762.58	
ML-09D	2/10/2009	8:29	1.0	0.0	0.1	19.9	80.0	-46.2	43.87	749.96	
ML-09D	3/4/2009	12:15	1.4	0.0	0.1	20.7	79.2	-19.0	44.92	748.91	
ML-09D	4/8/2009	09:15	2.5	0.0	0.2	19.7	80.0	-28.3	45.35	748.48	
ML-09D	6/3/2009	16:25	0.0	0.0	0.0	20.4	79.6	-9.5	44.89	748.94	
ML-09D	7/23/2009	10:53	0.9	0.0	0.7	19.9	79.4	-23.6	NM	NM	
ML-09D	8/13/2009	13:14	0.0	0.0	0.2	20.9	78.9	-18.0	48.18	745.65	
ML-09I	12/22/2008	13:11	0.0	11.6	0.7	17.1	70.7	-20.8	37.25	756.63	
ML-09I	2/10/2009	8:40	1.0	36.2	2.2	8.2	53.4	-16.3	36.72	757.16	
ML-09I	3/4/2009	12:20	0.0	2.7	0.1	19.9	77.3	-5.4	36.23	757.65	
ML-09I	4/8/2009	09:05	0.0	4.8	0.3	18.2	76.9	-18.8	34.88	759.00	
ML-09I	5/29/2009	17:13	0.3	4.7	0.3	17.1	77.9		NM	NM	
ML-09I	6/3/2009	16:20	0.0	2.8	0.2	18.5	52.0	-12.2	34.64	759.24	
ML-09I	7/23/2009	10:57	0.5	3.2	0.3	16.9	79.6	-18.2	NM	NM	
ML-09I	8/13/2009	13:00	0.0	2.6	0.2	17.7	79.4	-16.1	35.10	758.88	
ML-09S	12/22/2008	13:35	0.0	0.0	0.8	19.3	79.9	-14.6	4.62	789.24	
ML-09S	2/10/2009	8:20	2.0	0.0	2.2	10.0	87.8	-57.1	5.27	788.59	
ML-09S	3/4/2009	12:00	0.0	0.0	0.1	20.8	79.1	0.0	3.15	790.71	
ML-09S	4/8/2009	09:21	0.0	0.0	0.0	20.4	79.6	-11.3	2.59	791.27	
ML-09S	6/3/2009	16:30	0.0	0.0	0.1	20.2	79.7	-13.6	5.52	788.34	
ML-09S	7/23/2009	10:50	0.3	0.0	3.5	16.4	80.1	-14.8	NM	NM	
ML-09S	8/13/2009	13:18	0.0	0.0	2.0	19.1	78.9	-8.0	9.10	784.76	
ML-10D	12/22/2008	14:00	0.0	0.1	1.4	18.2	80.3	-12.7	51.39	746.24	
ML-10D	2/9/2009	14:20	0.0	2.3	1.8	12.8	83.1	-50.3	49.48	748.15	Surface assembly heaved. Needs repair
ML-10D	3/4/2009	13:50	0.0	0.3	0.7	19.5	79.5	0.0	49.55	748.08	
ML-10D	4/8/2009	13:10	1.8	0.2	0.4	18.0	81.3	-34.3	48.10	749.53	
ML-10D	5/29/2009	17:32	-5.6	0.1	0.5	17.9	81.5	-40.1	NM	NM	
ML-10D	6/4/2009	13:59	-13.6	0.1	0.6	17.4	81.9	-23.1	47.98	749.65	
ML-10D	6/17/2009	14:05	-6.2	0.0	0.9	17.3	81.8	-33.9	NM	NM	
ML-10D	6/18/2009	9:30	-16.0	0.0	0.9	17.2	81.9	-41.9	NM	NM	
ML-10D	6/19/2009	8:10	-26.6	0.0	0.9	17.3	81.6	-56.9	NM	NM	
ML-10D	6/20/2009	9:55	-38.8	0.0	1.0	17.1	81.9	-58.8	NM	NM	
ML-10D	6/21/2009	7:05	-45.9	0.0	0.9	17.1	82.0	-67.1	NM	NM	
ML-10D	6/22/2009	8:10	-52.3	0.0	0.9	17.0	82.1	-71.0	NM	NM	
ML-10D	6/23/2009	11:20	-59.5	0.0	0.7	17.0	82.3	-76.1	NM	NM	
ML-10D	6/24/2009	15:25	-55.6	0.0	0.4	18.4	81.2	-72.1	NM	NM	
ML-10D	6/25/2009	8:00	-74.2	0.0	0.3	19.3	80.4	-60.2	NM	NM	
ML-10D	6/26/2009	11:05	1.5	0.0	0.1	20.1	79.8	-24.0	NM	NM	
ML-10D	6/27/2009	6:48	-.3	0.0	0.3	20.7	79.6	-26.6	NM	NM	
ML-10D	6/28/2009	7:40	-1.0	0.0	0.3	20.0	79.7	-30.2	NM	NM	
ML-10D	6/29/2009	7:40	-0.7	0.0	0.3	17.9	79.8	-29.8	NM	NM	
ML-10D	6/30/2009	8:55	28.7	0.0	0.3	19.6	NM	26.9	NM	NM	
ML-10D	7/1/2009	8:45	-1.7	0.0	0.3	20.0	79.7	-28.8	NM	NM	
ML-10D	7/2/2009	7:40	29.0	0.0	0.3	19.8	79.9	26.8	NM	NM	
ML-10D	7/3/2009	8:00	-1.5	0.0	0.2	19.9	79.9	32.6	NM	NM	
ML-10D	7/4/2009	9:54	0	0	0.2	20.1	79.7	-16.7	NM	NM	
ML-10D	7/5/2009	8:37	-1.2	0.2	0.3	19.8	79.8	-20.3	NM	NM	
ML-10D	7/6/2009	7:50	-2.3	0.0	0.3	20.2	79.6	-24.4	NM	NM	
ML-10D	7/7/2009	8:24	-2.0	0.0	0.4	19.6	80.0	-36.1	NM	NM	
ML-10D	7/8/2009	6:55	-1.7	0.0	0.3	20.0	79.7	-33.6	NM	NM	
ML-10D	7/9/2009	7:11	-1.5	0.0	0.4	19.8	79.8	-29.0	NM	NM	
ML-10D	7/10/2009	8:08	-2.0	0.0	0.3	20.0	79.7	-27.8	NM	NM	
ML-10D	7/11/2009	10:34	-0.0	0.0	0.3	19.6	80.1	-23.9	NM	NM	
ML-10D	7/12/2009	8:14	-0.9	0.0	0.4	19.7	79.9	-24.7	NM	NM	
ML-10D	7/13/2009	7:54	-1.7	0.0	0.4	19.6	80.0	-27.5	NM	NM	
ML-10D	7/14/2009	10:25	-2.0	0.2	0.0	20.3	79.2	-10.7	NM	NM	
ML-10D	7/15/2009	9:23	0.8	0.3	0.4	19.1	80.3	-28.4	NM	NM	
ML-10D	7/16/2009	6:25	-6.7	0.0	0.4	19.5	80.1	-30.1	NM	NM	
ML-10D	7/17/2009	8:02	0.0	0.0	0.3	19.7	80.0	-25.3	NM	NM	
ML-10D	7/18/2009	9:07	-1.5	0.0	0.4	19.9	79.7	-25.6	NM	NM	
ML-10D	7/19/2009	8:00	-4.3	0.0	0.3	19.9	79.8	-28.7	NM	NM	
ML-10D	7/20/2009	8:28	0.0	0.0	0.3	19.9	79.8	-22.2	NM	NM	
ML-10D	7/21/2009	9:30	-7.5	0.0	0.3	19.6	80.1	-39.0	NM	NM	

Appendix C
Gas Probe Monitoring Results
Greenbrook School Nature and Extent Characterization
Mallard Lake Landfill
AECOM Project No. 60139758.1800

Probe	Date	Time of measurement	Static Pressure (inches H2O)	Methane (%)	Carbon Dioxide (%)	Oxygen (%)	Balance Gas (%)	Post Purge Pressure (inches H2O)	Depth to Water (bMV)	Elevation of Groundwater Surface (ft MSL)	Qualifier
ML-10D	7/22/2009	9:52	-1.5	0.0	0.4	19.8	79.7	-26.3	NM	NM	
ML-10D	7/23/2009	7:15	-0.2	0.0	0.3	20.1	79.6	-30.4	NM	NM	
ML-10D	7/24/2009	7:50	-1.2	0.0	0.3	19.8	79.9	-27.6	NM	NM	
ML-10D	7/25/2009	7:40	-2.9	0.0	0.4	19.7	79.9	-26.1	NM	NM	
ML-10D	7/26/2009	8:08	-6.0	0.0	0.3	19.9	79.8	-33.4	NM	NM	
ML-10D	7/27/2009	8:00	-15.2	0.0	0.4	19.5	80.1	-37.9	NM	NM	
ML-10D	7/28/2009	9:35	-24.8	0.0	0.4	19.1	80.5	-51.8	NM	NM	
ML-10D	7/29/2009	8:31	-0.7	0.0	0.2	20.0	79.8	-37.4	NM	NM	
ML-10D	7/30/2009	8:35	-0.4	0.0	0.2	19.9	79.9	-41.8	NM	NM	
ML-10D	7/31/2009	8:29	-1.4	0.0	0.2	20.6	79.2	-28.8	NM	NM	
ML-10D	8/1/2009	7:46	-7.6	0.0	0.3	20.3	79.4	-32.2	NM	NM	
ML-10D	8/2/2009	7:30	-4.1	0.0	0.3	20.3	79.4	-29.1	NM	NM	
ML-10D	8/3/2009	7:40	0.5	0.0	0.3	20.1	79.6	-34.8	NM	NM	
ML-10D	8/4/2009	7:29	0.0	0.0	0.2	20.3	79.5	-27.5	NM	NM	
ML-10D	8/5/2009	9:15	-17.9	0.0	0.3	19.8	79.9	-42.5	NM	NM	
ML-10D	8/6/2009	9:35	-11.4	0.0	0.2	19.9	79.9	-36.8	NM	NM	
ML-10D	8/7/2009	9:30	-13.7	0.0	0.4	19.7	79.8	-38.8	NM	NM	
ML-10D	8/8/2009	8:10	-13.4	0.0	0.4	19.8	79.8	-55.6	NM	NM	
ML-10D	8/9/2009	7:40	-0.2	0.0	0.3	20.2	79.5	-45.5	NM	NM	
ML-10D	8/10/2009	7:57	-0.9	0.0	0.2	20.3	79.5	-40.3	NM	NM	
ML-10D	8/11/2009	8:17	0.3	0.0	0.4	20.1	79.5	-52.4	NM	NM	
ML-10D	8/12/2009	10:13	-1.3	0.0	0.3	20.0	79.8	-38.3	NM	NM	
ML-10D	8/13/2009	7:20	-3.1	0.0	0.3	20.3	79.4	-49.5	NM	NM	
ML-10D	8/14/2009	7:44	-1.2	0.0	0.2	20.5	79.3	-48.3	NM	NM	
ML-10D	8/15/2009	8:41	0.0	0.0	0.0	20.5	79.5	-42.4	NM	NM	
ML-10D	8/16/2009	7:54	-1.7	0.0	0.1	20.5	79.4	-29.7	NM	NM	
ML-10D	8/17/2009	7:40	-2.3	0.0	0.2	20.4	79.4	-37.9	NM	NM	
ML-10D	8/18/2009	7:55	0.0	0.0	0.2	20.4	79.4	-41.1	NM	NM	
ML-10D	8/19/2009	11:24	-15.6	0.0	0.2	20.1	79.7	-47.3	NM	NM	
ML-10D	8/20/2009	10:15	-8.0	0.0	0.3	19.8	79.9	-42.1	NM	NM	
ML-10D	8/21/2009	9:11	-11.6	0.0	0.4	19.7	79.9	-45.9	NM	NM	
ML-10D	8/22/2009	6:59	-3.9	0.0	0.3	20.5	79.3	-56.4	NM	NM	
ML-10D	8/23/2009	8:40	-11.4	0.0	0.5	19.7	79.8	-57.0	NM	NM	
0D	8/24/2009	12:01	-16.6	0.0	0.2	20.0	79.8	-59.2	NM	NM	
)D	8/25/2009	10:02	-10.0	0.0	0.2	20.6	79.2	-48.7	NM	NM	
10D	8/26/2009	8:45	-12.3	0.0	0.4	20.4	79.6	-38.6	NM	NM	
ML-10D	8/27/2009	9:19	-10.6	0.0	0.5	19.5	80.0	-33.8	NM	NM	
ML-10D	8/28/2009	9:24	-16.1	0.0	0.5	19.5	80.0	-41.0	NM	NM	
ML-10D	8/29/2009	8:53	-18.0	0.0	0.5	19.5	80.0	-53.5	NM	NM	
ML-10D	8/30/2009	9:09	-12.8	0.0	0.3	20.1	79.6	-49.7	NM	NM	
ML-10D	8/31/2009	9:16	-10.2	0.0	0.2	20.2	79.6	-43.3	NM	NM	
ML-10I	12/22/2008	13:50	2.1	35.7	3.0	10.3	51.4	-23.7	41.76	756.06	
ML-10I	2/9/2009	14:30	3.0	74.0	6.2	0.2	19.6	-10.9	38.61	759.21	
ML-10I	3/4/2009	13:45	0.0	8.1	0.7	18.7	72.5	0.0	35.46	762.36	
ML-10I	4/8/2009	13:15	3.7	51.4	4.9	5.9	39.0	-0.4	26.10	771.72	
ML-10I	5/6/2009	14:07	0.0	6.5	0.6	18.4	74.5	-12.2	25.62	772.20	
ML-10I	5/14/2009	15:03	0.0	3.8	0.5	19.2	76.6	-29.5	25.50	772.32	
ML-10I	6/4/2009	14:05	0.0	1.0	0.3	19.6	79.1	-21.7	25.51	772.31	
ML-10I	6/24/2009	15:25	0.0	0.1	0.2	20.0	79.7	-19.8	NM	NM	
ML-10I	6/25/2009	8:04	0.2	0.0	0.0	20.6	79.4	-22.0	NM	NM	
ML-10I	6/26/2009	8:00	0.2	0.3	0.3	20.1	79.3	-19.2	NM	NM	
ML-10I	6/27/2009	6:45	-.3	0.2	0.4	20.4	79.0	-21.3	NM	NM	
ML-10I	6/28/2009	9:43	-0.2	0.1	0.4	20.1	79.4	-22.6	NM	NM	
ML-10I	6/29/2009	7:35	-0.5	0.2	0.4	20.2	79.2	-23.4	NM	NM	
ML-10I	6/30/2009	9:00	28.9	0.1	0.2	20.5	NM	28.4	NM	NM	
ML-10I	7/1/2009	8:40	0.3	0.0	0.2	20.5	79.3	-22.0	NM	NM	
ML-10I	7/2/2009	7:45	29.1	0.0	0.3	20.5	79.2	28.5	NM	NM	
ML-10I	7/3/2009	8:05	0.0	0.2	0.3	20.1	79.5	-20.4	NM	NM	
ML-10I	7/4/2009	9:51	0	0.1	0.2	20.4	79.3	-17.5	NM	NM	
ML-10I	7/5/2009	8:34	-1.2	0.0	0.3	19.8	79.7	-31.9	NM	NM	
ML-10I	7/6/2009	6:35	-7.0	0.0	0.0	20.9	79.4	-22.1	NM	NM	Start portable hose extraction
ML-10I	7/6/2009	7:55	-1.1	0.2	0.4	20.4	79.1	-21.8	NM	NM	End portable hose extraction
ML-10I	7/7/2009	8:20	-1.2	0.0	0.0	20.6	79.4	-25.0	NM	NM	Start portable hose extraction
ML-10I	7/7/2009	17:20	5.0	0.0	0.1	20.7	79.2	-30.0	NM	NM	End portable hose extraction
ML-10I	7/8/2009	7:00	0.4	0.0	0.1	20.7	79.2	-23.7	NM	NM	Start portable hose extraction
ML-10I	7/8/2009	16:38	-1.8	0.0	0.0	20.9	79.1	-28.9	NM	NM	End portable hose extraction
ML-10I	7/9/2009	7:16	-1.2	0.0	0.1	20.4	79.5	-30.1	NM	NM	Start portable hose extraction
ML-10I	7/9/2009	18:20	-14.1	0.0	0.0	20.8	79.2	-39.9	NM	NM	End portable hose extraction
ML-10I	7/10/2009	8:05	-1.0	0.2	0.1	20.4	79.3	-28.7	NM	NM	Start portable hose extraction
ML-10I	7/10/2009	18:45	0.2	0.0	0.0	20.7	79.3	-26.2	NM	NM	End portable hose extraction
ML-10I	7/11/2009	10:37	-0.0	0.0	0.0	20.5	79.5	-27.2	NM	NM	Start portable hose extraction
ML-10I	7/11/2009	16:10	-3.3	2.2	0.3	20.3	77.3	-23.2	NM	NM	End portable hose extraction
ML-10I	7/12/2009	8:11	0.4	62.3	5.2	3.8	28.8	-15.5	NM	NM	Start portable hose extraction
)I	7/12/2009	17:10	-1.0	31.1	2.2	12.5	54.3	-16.9	NM	NM	End portable hose extraction
)I	7/13/2009	7:49	0.3	68.2	5.4	3.1	23.3	-11.3	NM	NM	Start portable hose extraction
-10I	7/13/2009	18:26	0.0	23.9	1.7	14.4	60.0	-19.5	NM	NM	End portable hose extraction
ML-10I	7/14/2009	10:20	0.1	59.9	4.6	5.0	30.7	-4.3	NM	NM	Start portable hose extraction
ML-10I	7/14/2009	16:55	-5.9	12.6	1.0	17.4	68.9	-21.2	NM	NM	End portable hose extraction

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Probe	Date	Time of measurement	Static Pressure (inches H2O)	Methane (%)	Carbon Dioxide (%)	Oxygen (%)	Balance Gas (%)	Post Purge Pressure (inches H2O)	Depth to Water (bMV)	Elevation of Groundwater Surface (ft MSL)	Qualifier
ML-10I	7/15/2009	9:18	0.4	64.5	4.9	3.5	27.0	-12.6	NM	NM	Start portable hose extraction
ML-10I	7/15/2009	18:25	-11.4	12.7	1.2	15.7	65.3	-19.5	NM	NM	End portable hose extraction
ML-10I	7/16/2009	6:06	0.0	25.0	2.0	13.9	59.1	-15.7	NM	NM	Start portable hose extraction
ML-10I	7/16/2009	17:04	-4.1	17.0	1.4	15.6	65.6	-21.8	NM	NM	End portable hose extraction
ML-10I	7/17/2009	8:05	0.0	21.0	2.0	19.3	62.5	-12.5	NM	NM	Start portable hose extraction
ML-10I	7/17/2009	16:17	-3.8	16.0	1.2	16.7	66.2	-3.8	NM	NM	End portable hose extraction
ML-10I	7/18/2009	0:00	-2.2	6.3	0.5	19.3	73.9	-21.8	NM	NM	End portable hose extraction
ML-10I	7/18/2009	9:09	0.0	19.3	1.8	15.1	64.8	-12.6	NM	NM	Start portable hose extraction
ML-10I	7/19/2009	7:58	-1.8	13.7	1.4	16.8	68.1	-22.0	NM	NM	Start portable hose extraction
ML-10I	7/19/2009	16:22	0.0	2.6	0.3	20.0	77.1	-17.9	NM	NM	End portable hose extraction
ML-10I	7/20/2009	8:30	0.0	10.7	0.9	17.7	70.7	-13.2	NM	NM	Start portable hose extraction
ML-10I	7/20/2009	16:50	0.0	5.3	0.3	19.7	74.7	-20.1	NM	NM	End portable hose extraction
ML-10I	7/21/2009	9:33	0.3	14.8	1.2	16.5	67.4	-17.7	NM	NM	Start portable hose extraction
ML-10I	7/21/2009	19:05	-3.1	0.4	0.0	20.7	78.9	-21.7	NM	NM	End portable hose extraction
ML-10I	7/22/2009	9:48	-0.1	17.8	1.3	15.9	68.8	-19.9	NM	NM	Start portable hose extraction
ML-10I	7/22/2009	17:50	-1.5	2.4	0.2	20.2	77.36	-20.5	NM	NM	End portable hose extraction
ML-10I	7/23/2009	7:10	-0.1	30.3	2.2	12.3	58.9	-32.8	NM	NM	Start portable hose extraction
ML-10I	7/23/2009	18:28	-2.7	7.1	0.4	19.4	73.2	-18.2	NM	NM	End portable hose extraction
ML-10I	7/24/2009	7:45	-0.9	20.4	1.5	14.9	63.2	-23.4	NM	NM	Start portable hose extraction
ML-10I	7/24/2009	16:42	-0.2	6.1	0.4	19.4	74.1	-18.7	NM	NM	End portable hose extraction
ML-10I	7/25/2009	7:37	0.0	14.9	1.1	16.1	67.9	-18.9	NM	NM	Start portable hose extraction
ML-10I	7/25/2009	17:20	-2.4	9.2	0.5	18.2	72.7	-23.6	NM	NM	End portable hose extraction
ML-10I	7/26/2009	8:05	-1.3	13.1	1.1	17.0	68.5	-22.3	NM	NM	Start portable hose extraction
ML-10I	7/26/2009	16:58	-2.0	7.1	0.5	19.0	73.4	-13.3	NM	NM	End portable hose extraction
ML-10I	7/27/2009	8:03	0.0	14.1	1.0	16.9	68.1	-16.4	NM	NM	Start portable hose extraction
ML-10I	7/27/2009	17:10	-17.0	0.0	0.0	20.7	79.3	-34.0	NM	NM	End portable hose extraction
ML-10I	7/28/2009	9:40	0.3	4.6	0.7	18.2	76.4	-22.7	NM	NM	Start portable hose extraction
ML-10I	7/28/2009	18:10	-5.9	0.0	0.0	20.6	79.4	-17.4	NM	NM	End portable hose extraction
ML-10I	7/29/2009	N/A	-0.5	3.0	0.2	19.7	77.2	-24.5	NM	NM	End portable hose extraction
ML-10I	7/29/2009	8:28	0.0	4.5	0.5	19.0	76.0	-21.6	NM	NM	Start portable hose extraction
ML-10I	7/30/2009	8:34	0.0	8.9	0.7	18.6	71.9	-17.1	NM	NM	
ML-10I	7/31/2009	8:33	0.0	8.6	0.9	18.3	72.2	-16.7	NM	NM	
ML-10I	8/1/2009	7:49	0.0	9.3	1.0	17.9	71.8	-17.8	NM	NM	
ML-10I	8/2/2009	7:33	0.0	8.5	1.1	17.9	72.5	-19.1	NM	NM	
ML-10I	8/3/2009	7:43	0.0	11.0	1.3	17.2	70.5	-19.2	NM	NM	
ML-10I	8/4/2009	7:33	0.0	11.0	1.2	17.5	70.3	-21.2	NM	NM	
ML-10I	8/5/2009	9:10	0.0	7.8	1.0	18.0	73.2	-21.9	NM	NM	
ML-10I	8/6/2009	9:30	0.0	7.7	1.0	18.1	79.2	-19.4	NM	NM	Start portable hose extraction
ML-10I	8/6/2009	18:21	-4.5	0.5	0.0	20.6	78.9	-27.2	NM	NM	End portable hose extraction
ML-10I	8/7/2009	9:25	0.0	4.9	0.5	18.9	75.5	-19.8	NM	NM	Start portable hose extraction
ML-10I	8/7/2009	18:34	-0.6	9.6	0.7	18.1	71.6	-19.9	NM	NM	End portable hose extraction
ML-10I	8/8/2009	8:05	0.0	35.9	2.7	10.5	51.5	-35.2	NM	NM	Start portable hose extraction
ML-10I	8/8/2009	16:45	-14.2	6.0	0.3	19.5	74.2	-18.9	NM	NM	End portable hose extraction
ML-10I	8/9/2009	7:35	0.1	16.1	1.3	16.3	66.3	-25.1	NM	NM	Start portable hose extraction
ML-10I	8/9/2009	17:33	-10.1	0.0	0.0	20.7	79.3	-34.0	NM	NM	End portable hose extraction
ML-10I	8/10/2009	7:50	0.1	30.6	2.3	12.0	55.0	-32.3	NM	NM	Start portable hose extraction
ML-10I	8/10/2009	17:18	-4.5	0.7	0.1	21.1	78.2	-23.8	NM	NM	End portable hose extraction
ML-10I	8/11/2009	8:13	0.0	10.1	0.8	18.1	71.0	-0.4	NM	NM	Start portable hose extraction
ML-10I	8/11/2009	17:20	-15.7	6.3	0.4	19.7	73.7	-19.9	NM	NM	End portable hose extraction
ML-10I	8/12/2009	10:37	0.3	11.4	1.0	17.2	70.3	-21.7	NM	NM	Start portable hose extraction
ML-10I	8/12/2009	17:11	-9.4	0.0	0.0	20.6	79.4	-24.1	NM	NM	End portable hose extraction
ML-10I	8/13/2009	7:36	0.0	9.8	0.7	18.3	71.2	-19.5	23.70	774.12	
ML-10I	8/13/2009	7:30	0.0	9.8	0.7	18.3	71.2	-19.5	NM	NM	Start portable hose extraction
ML-10I	8/13/2009	17:06	16.2	3.3	0.2	20.4	79.4	16.2	NM	NM	End portable hose extraction
ML-10I	8/14/2009	7:49	0.0	14.2	1.0	17.1	67.7	-19.4	NM	NM	Start portable hose extraction
ML-10I	8/14/2009	11:19	0.0	5.2	0.4	19.8	74.6	-17.1	NM	NM	End portable hose extraction
ML-10I	8/15/2009	8:46	0.0	17.5	1.3	16.0	65.2	-14.4	NM	NM	Start portable hose extraction
ML-10I	8/15/2009	16:25	0.0	9.7	0.6	18.6	71.1	-14.5	NM	NM	End portable hose extraction
ML-10I	8/16/2009	7:49	0.2	15.3	1.4	16.5	66.8	-16.3	NM	NM	Start portable hose extraction
ML-10I	8/16/2009	15:05	-3.5	3.1	0.3	20.2	76.4	-22.0	NM	NM	End portable hose extraction
ML-10I	8/17/2009	7:44	-15.6	20.1	1.4	15.2	63.3	-15.6	NM	NM	Start portable hose extraction
ML-10I	8/17/2009	16:52	-2.8	1.8	0.2	20.4	77.6	-18.3	NM	NM	End portable hose extraction
ML-10I	8/18/2009	8:00	0.0	22.8	1.7	14.5	61.0	-15.2	NM	NM	Start portable hose extraction
ML-10I	8/18/2009	16:46	-4.6	3.5	0.3	17.9	76.4	-21.9	NM	NM	End portable hose extraction
ML-10I	8/19/2009	11:20	0.0	25.9	1.6	13.7	58.8	-12.9	NM	NM	End portable hose extraction
ML-10I	8/19/2009	15:30	-0.6	14.6	0.8	17.2	67.4	-13.8	NM	NM	End portable hose extraction
ML-10I	8/20/2009	10:13	0.0	23.8	1.7	12.8	61.7	-15.7	NM	NM	Start portable hose extraction
ML-10I	8/20/2009	17:18	-1.1	2.6	0.3	20.1	77.0	-20.6	NM	NM	End portable hose extraction
ML-10I	8/21/2009	9:08	0.0	20.7	1.7	14.6	63.0	-13.2	NM	NM	Start portable hose extraction
ML-10I	8/21/2009	16:15	-3.1	0.8	0.1	20.5	78.6	-23.3	NM	NM	End portable hose extraction
ML-10I	8/22/2009	7:03	-0.4	19.9	1.6	15.2	63.1	-21.4	NM	NM	Start portable hose extraction
ML-10I	8/22/2009	18:15	-3.2	4.5	0.5	19.4	75.6	-25.6	NM	NM	End portable hose extraction
ML-10I	8/23/2009	8:33	0.0	28.3	2.0	12.9	56.9	-15.0	NM	NM	Start portable hose extraction
ML-10I	8/23/2009	17:30	-1.1	10.6	0.7	17.0	71.7	-22.6	NM	NM	End portable hose extraction
ML-10I	8/24/2009	11:57	0.6	50.1	3.5	7.1	38.6	-14.4	NM	NM	Start portable hose extraction
ML-10I	8/24/2009	15:20	-6.1	0.0	0.0	20.8	79.2	-17.5	NM	NM	End portable hose extraction
ML-10I	8/25/2009	9:55	0.2	35.3	2.4	11.9	50.1	-18.6	NM	NM	Start portable hose extraction
ML-10I	8/25/2009	15:10	-1.5	9.5	0.6	18.4	71.5	-18.9	NM	NM	End portable hose extraction

Appendix C
Gas Probe Monitoring Results
Greenbrook School Nature and Extent Characterization
Mallard Lake Landfill
AECOM Project No. 60139758.1800

Probe	Date	Time of measurement	Static Pressure (inches H2O)	Methane (%)	Carbon Dioxide (%)	Oxygen (%)	Balance Gas (%)	Post Purge Pressure (inches H2O)	Depth to Water (bMV)	Elevation of Groundwater Surface (ft MSL)	Qualifier
ML-10I	8/26/2009	8:51	0.8	63.0	4.1	5.0	27.9	-17.2	NM	NM	Start portable hose extraction
ML-10I	8/26/2009	14:15	-6.0	2.9	0.3	19.6	77.2	-26.7	NM	NM	End of portable hose extraction
ML-10I	8/27/2009	9:24	0.6	53.1	3.6	7.0	36.3	-15.8	NM	NM	
ML-10I	8/27/2009	14:45	-2.3	3.1	0.3	19.5	77.1	-25.0	NM	NM	
ML-10I	8/28/2009	9:30	0.2	45.6	3.3	8.6	42.5	-18.8	NM	NM	
ML-10I	8/28/2009	14:40	-1.1	24.9	1.7	14.0	59.4	-19.8	NM	NM	
ML-10I	8/29/2009	8:57	0.8	39.5	2.8	9.1	48.6	-13.6	NM	NM	Start portable hose extraction
ML-10I	8/29/2009	15:30	-1.5	31.2	2.1	12.1	54.6	-14.3	NM	NM	End portable hose extraction
ML-10I	8/30/2009	9:13	0.0	52.3	3.7	6.6	37.4	-13.4	NM	NM	Start portable hose extraction
ML-10I	8/30/2009	15:08	-0.8	12.7	1.8	12.5	19.0	-18.7	NM	NM	End portable hose extraction
ML-10I	8/31/2009	9:21	0.3	53.3	3.6	7.0	36.1	-14.1	NM	NM	Start portable hose extraction
ML-10I	8/31/2009	14:45	-2.0	7.9	0.6	18.4	73.1	-23.4	NM	NM	End portable hose extraction
ML-10S	11/20/2008	10:01	0.0	0.0	1.3	18.5	80.2	-13.9	NM	NM	
ML-10S	12/22/2008	13:48	0.0	0.0	0.3	19.6	80.1	-16.1	4.62	793.42	
ML-10S	2/9/2009	14:41	0.0	2.3	2.7	13.1	81.9	0.0	5.32	792.27	Surface assembly heaved. Needs repair
ML-10S	3/4/2009	13:40	0.0	0.2	0.6	20.5	78.7	0.0	3.07	794.52	
ML-10S	4/8/2009	13:00	0	0.0	0.1	19.7	80.2	-14.6	1.80	795.79	
ML-10S	6/4/2009	13:59	-0.3	0.0	0.0	20.5	79.5	-21.7	3.31	794.28	
ML-10S	8/13/2009	12:30	0.0	0.0	6.2	6.1	87.7	-6.9	8.22	789.37	
ML-11	10/3/2008	14:36	0.0	0.0	0.2	20.5	79.3	-41.7	10.37	776.40	
ML-11	12/11/2008	16:08	1.7	0.0	0.3	19.7	80.0	-13.2	NM	NM	
ML-11	2/9/2009	11:17	NM	0.0	0.3	20.3	79.4	-27.2	1.93	784.92	Valve frozen. Replaced for reading
ML-11	3/4/2009	13:05	2.7	0.1	0.1	20.7	79.1	-13.6	6.69	780.08	
MI-11	4/8/2009	10:45	5.8	0.0	1.3	18.2	80.6	-72.6	5.72	781.05	
ML-11	8/14/2009	10:04	-0.5	0.0	0.4	20.3	79.3	-23.9	10.62	776.15	
ML-11D	11/20/2008	11:38	0.0	0.0	0.0	20.3	79.7	-52.8	NM	NM	
ML-11D	12/23/2008	11:00	0.0	0.0	0.1	19.7	80.2	-64.9	NM	NM	
ML-11D	2/9/2009	11:30	NM	0.0	0.2	20.4	79.4	-16.3	37.40	749.37	QD requires replacement. Replaced for reading
ML-11D	3/4/2009	13:10	0.0	0.1	0.0	20.7	79.2	-24.5	36.79	750.06	
ML-11D	4/8/2009	10:40	0.0	0.0	0.0	20.3	79.7	-23.0	35.84	751.01	
ML-11D	6/4/2009	14:20	0.2	0.0	0.0	20.3	79.7	-21.6	36.55	750.30	
ML-11D	8/14/2009	10:00	0.0	0.0	0.0	20.5	79.6	-26.5	43.00	743.85	
ML-11I	6/4/2009	14:15	0.6	0.0	1.0	19.5	79.5	-44.3	6.35	780.42	
?2	11/21/2008	16:13	5.3	23.7	4.2	0.7	7.4	-35.0	NM	NM	Fittings concreted together
?	12/11/2008	16:20	-1.8	6.5	1.4	13.6	78.3	-58.5	NM	NM	
?2	2/9/2009	14:57	0.0	0.0	0.1	20.2	79.7	-2.7	15.62	775.40	Surface assembly heaved. Needs repair
ML-12	3/4/2009	13:20	0.0	0.1	0.0	20.8	79.1	-2.7	15.54	775.48	
ML-12	4/8/2009	15:50	3.3	0.0	0.1	20.2	79.1	-15.2	13.80	777.22	
ML-12	5/6/2009	14:02	0.0	0.3	0.2	19.6	79.9	-13.6	13.45	777.57	
ML-12	6/4/2009	14:07	-2.0	0.0	1.0	19.3	79.8	-26.5	12.75	778.27	
ML-12	7/23/2009	11:25	1.4	0.0	1.0	19.4	79.7	-24.6	NM	NM	
ML-12	8/14/2009	10:28	0.1	0.0	0.3	20.3	79.4	-18.9	14.01	777.01	
ML-13I	11/21/2008	13:09	3.6	30.8	3.1	0.8	65.2	-15.1	NM	NM	Just after suface completion
ML-13I	12/11/2008	9:20	8.5	31.3	3.2	0.0	65.6	-10.4	46.70	753.63	
ML-13I	2/9/2009	13:34	8.0	28.3	3.2	0.0	68.5	NM	dry to 46.75	<753.58	
ML-13I	3/4/2009	14:10	6.8	26.0	2.8	0.0	71.2	2.7	Dry to 46.71	<753.62	
ML-13I	4/8/2009	16:15	28.0	27.6	2.8	0.0	69.7	18.8	46.50	753.83	
ML-13I	5/6/2009	15:12	13.6	32.4	2.3	1.0	64.3	0.0	39.71	760.62	
ML-13I	6/4/2009	14:35	16.3	28.0	2.5	0.0	69.5	2.7	41.49	758.84	
ML-13I	8/14/2009	10:38	3.5	23.2	2.3	2.7	71.8	-19.8	43.41	756.92	
ML-13I	8/21/2009	13:50	5.4	24.0	2.6	1.0	72.4	-19.6	NM	NM	
ML-13S	11/21/2008	12:56	0.0	0.0	0.1	20.3	79.6	-48.9	NM	NM	Just after suface completion
ML-13S	12/11/2008	9:15	0.0	23.4	2.6	7.4	61.6	-10.3	26.20	774.29	
ML-13S	2/9/2009	13:44	3.0	40.3	3.3	1.5	35.5	-65.2	25.28	775.21	
ML-13S	3/4/2009	14:05	23.1	6.6	0.5	17.5	75.4	-25.8	24.86	775.63	
ML-13S	4/8/2009	16:05	5.4	31.1	2.3	4.0	62.7	-67.2	0.00	800.49	
ML-13S	6/4/2009	14:30	-4.1	19.0	1.2	10.9	68.9	-53.0	18.30	782.19	
ML-13S	8/14/2009	10:45	3.1	0.0	0.0	20.3	79.7	-19.1	21.02	779.47	
ML-14	12/22/2008	14:34	10.9	28.7	2.8	0.2	68.3	-10.4	40.10	758.99	
ML-14	2/10/2009	9:08	9.0	33.7	2.4	2.3	61.6	-8.2	35.67	763.42	
ML-14	3/4/2009	15:20	4.1	4.7	0.3	18.7	76.3	-5.4	35.69	763.40	
ML-14	4/8/2009	14:50	10.4	81.4	2.4	0.0	56.3	-7.6	33.80	765.29	
ML-14	5/6/2009	14:28	6.8	41.1	2.2	0.8	55.9	-4.1	33.64	765.39	
ML-14	5/29/2009	18:03	2.2	35.2	2.2	2	60.1	-29.6	NM	NM	
ML-14	6/4/2009	15:30	-1.1	28.8	2.1	4.1	64.9	-24.2	36.60	762.49	
ML-14	6/9/2009	13:03	0.9	29.8	2.1	6.1	61.9	-27.0	30.54	768.55	
ML-14	7/21/2009	12:57	1.2	32.1	2.3	3.6	61.8	-18.7	30.81	768.28	
ML-14	8/13/2009	11:57	-3.9	33.9	2.3	2.5	61.3	-22.8	30.25	768.84	
ML-14	8/21/2009	14:00	-0.8	26.3	2.1	5.7	65.9	-22.6	NM	NM	
ML-15I	12/11/2008	15:17	0.6	0.0	0.1	19.7	80.2	-40.9	16.50	782.53	
ML-15I	2/9/2009	12:40	NM	0.0	0.1	20.3	79.6	-27.2	13.22	785.81	Valve frozen. Replaced for reading
ML-15I	3/4/2009	14:25	0.0	0.1	0.0	20.6	79.3	-9.5	14.78	784.25	
MI-15I	4/8/2009	16:30	1.1	0.0	0.0	16.2	83.8	-11.2	12.30	786.73	
5I	6/4/2009	15:00	-2.7	0.1	0.0	19.4	80.5	-16.3	13.90	785.13	
5I	8/13/2009	10:52	0.1	0.0	0.1	20.3	79.6	-53.0	18.35	780.68	
-15S	12/11/2008	10:20	NM	NM	NM	NM	NM	NM	0.00	799.09	Gas reading not taken due to WL
ML-15S	2/9/2009	12:48	NM	0.0	0.1	18.6	81.3	NM	At Midvalve	799.09	Valve frozen. Replaced for reading
ML-15S	3/4/2009	14:20	0.0	0.1	0.1	20.5	79.3	-1.4	0.47	798.62	

Appendix C
Gas Probe Monitoring Results
Greenbrook School Nature and Extent Characterization
Mallard Lake Landfill
AECOM Project No. 60139758.1800

Probe	Date	Time of measurement	Static Pressure (inches H2O)	Methane (%)	Carbon Dioxide (%)	Oxygen (%)	Balance Gas (%)	Post Purge Pressure (inches H2O)	Depth to Water (bMV)	Elevation of Groundwater Surface (ft MSL)	Qualifier
ML-15S	4/8/2009	16:25	NM	NM	NM	NM	NM	NM	0.00	799.09	
ML-15S	6/4/2009	14:50	2.7	0.1	0.0	19.7	80.2	-4.1	1.41	797.68	
ML-15S	8/13/2009	14:52	0.0	0.0	0.1	20.9	79.0	-25.3	10.15	788.94	
ML-16	12/11/2008	15:05	0.1	0.0	0.4	17.8	81.8	-13.8	43.50	754.43	
ML-16	2/9/2009	12:08	NM	0.0	0.4	18.7	80.9	-23.1	35.00	762.93	Needs QD & FF coupler
ML-16	3/4/2009	14:50	0.0	0.0	0.1	20.5	79.4	-5.4	34.11	763.82	
ML-16	4/8/2009	11:42	5.2	0.0	0.4	6.9	92.7	-37.4	30.20	767.73	
ML-16	6/4/2009	14:40	0.8	0.0	0.3	19.3	80.4	-23.5	29.08	768.85	
ML-16	8/13/2009	14:58	0.0	0.0	0.3	20.5	79.2	-10.6	34.42	763.51	
ML-17	10/3/2008	14:18	0.0	0.0	0.5	19.9	79.5	-23.2	dry to 36.81	743.71	
ML-17	12/11/2008	15:45	0.0	0.0	0.4	19.7	79.9	-43.1	46.70	733.82	
ML-17	2/9/2009	10:53	NM	0.0	0.8	19.3	79.9	-43.5	13.29	767.23	Valve frozen. Replaced for reading
ML-17	3/4/2009	12:55	0.0	0.1	1.2	18.6	80.1	-46.2	13.37	767.15	
ML-17	4/8/2009	10:30	-5.8	0.0	1.5	18.4	80.0	-46.1	12.40	768.12	
ML-17	6/4/2009	14:16	0.0	0.1	2.1	17.6	80.2	-26.7	14.73	765.79	
ML-17	8/14/2009	9:48	0.0	1.1	2.0	7.2	89.6	-7.9	26.40	754.12	
ML-18	10/3/2008	14:30	0.0	0.0	0.1	20.9	79.0	-12.7	3.48	766.23	
ML-18	12/11/2008	15:54	0.0	0.0	0.1	20.1	79.7	-16.0	3.50	766.21	
ML-18	2/9/2009	11:06	NM	0.0	0.2	20.4	79.4	-1.4	3.40	766.31	Needs QD & FF coupler
ML-18	3/4/2009	15:05	0.0	0.0	0.0	20.8	79.2	0.0	3.31	766.40	
ML-18	4/8/2009	11:10	-0.1	0.0	0.0	20.4	79.6	-11.4	3.40	766.31	
ML-18	6/4/2009	15:41	0.0	0.1	0.1	20.2	79.6	0.0	4.84	764.87	
ML-18	8/14/2009	10:12	0.0	0.0	0.0	20.6	79.4	-8.7	6.71	763.00	
ML-19	12/11/2008	14:38	3.7	0.2	0.2	18.7	80.8	-72.0	15.40	777.32	
ML-19	2/9/2009	11:40	1.0	0.0	0.2	20.4	79.4	-25.8	15.48	777.24	
ML-19	3/4/2009	14:40	4.1	0.1	0.0	20.6	79.3	-13.6	13.27	799.45	
ML-19	4/8/2009	08:43	0.0	0.0	0.0	19.3	80.5	-36.6	14.30	778.42	
ML-19	6/4/2009	14:46	-1.4	0.1	0.1	17.8	82.0	-31.3	14.52	778.20	
ML-19	8/14/2009	11:12	-1.3	0.0	0.0	20.8	79.2	-7.8	19.08	773.64	
ML-20	2/10/2009	9:18	7.0	2.9	2.3	0.0	94.8	-68.0	29.60	767.79	WL may be affected by meltwater pouring down casing
ML-20	3/4/2009	15:35	13.6	1.3	0.2	8.6	89.9	-48.9	39.49	757.90	
ML-20	4/8/2009	14:55	6.3	2.6	2.1	0.0	95.3	-38.3	38.70	758.69	
ML-20	5/6/2009	15:03	2.7	2.5	1.2	4.3	92.0	-38.1	38.56	758.83	
ML-20	5/29/2009	18:11	0.0	1.6	1.3	7.7	89.3	-53.9	NM	NM	
ML-20	6/4/2009	15:10	0.0	1.4	1.4	6.6	90.6	-37.2	19.83	777.56	
ML-20	8/13/2009	12:05	0.3	0.2	0.3	18.6	80.9	-50.7	39.70	757.69	
ML-21	12/11/2008	14:49	-8.0	0.0	0.0	20.1	79.9	-35.2	34.40	758.95	
ML-21	2/9/2009	11:52	NM	0.0	1.0	11.1	87.9	-51.7	34.93	758.42	Needs QD & FF coupler
ML-21	3/4/2009	14:30	0.0	0.0	0.3	17.8	81.9	-31.3	34.53	758.72	
ML-21	4/8/2009	11:32	1.8	0.0	1.2	9.6	89.0	-46.2	30.70	762.65	
ML-21	6/4/2009	14:39	-1.4	0.3	1.6	2.6	95.5	-55.8	31.15	762.20	
ML-21	8/14/2009	11:02	0.2	0.0	0.2	20.4	79.4	-39.6	31.0	762.35	
ML-22	4/2/2009	11:05	NM	0.0	0.2	21.6	78.2	NM	NM	NM	Open hole reading
ML-22	4/6/2009	12:50	2.4	0.2	1.1	6.2	92.5	-31.3	30.40	ND	
ML-22	4/8/2009	15:00	14.8	0.0	0.4	13.5	86.3	-52.2	29.80	ND	
ML-22	5/6/2009	14:34	-6.8	0.0	0.4	9.9	89.7	-93.8	24.90	767.53	
ML-22	5/29/2009	17:58	0.0	0	0.4	13.8	85.8	-87.4	NM	NM	
ML-22	6/4/2009	15:55	-2.7	0.1	0.2	15.1	84.6	-57.1	25.40	767.03	
ML-22	8/13/2009	11:48	0.2	0.0	0.2	19.8	79.9	-41.6	24.94	767.49	
ML-23	11/21/2008	16:18	0.0	78.7	6.5	0.0	14.7	-11.3	dry to 31.55	<765.66	
ML-23	12/22/2008	14:14	3.0	77.1	7.5	0.0	15.4	-7.9	Dry to 31.70	<765.51	
ML-23	2/9/2009	14:00	8.0	91.0	8.5	0.0	0.5	9.6	dry to 31.56	<765.65	
ML-23	3/4/2009	13:30	0.0	88.3	6.9	0.0	4.8	0.0	Dry to 31.55	<765.66	
ML-23	4/8/2009	16:00	8.3	80.4	6.3	0.0	13.2	0.0	18.90	778.31	
ML-23	5/6/2009	14:14	2.7	48.9	1.7	5.9	43.5	0.0	22.52	774.69	
ML-23	5/14/2009	14:58	-1.1	0.0	0.2	20.5	79.3	-15.8	21.58	775.63	
ML-23	5/29/2009	17:39	-0.2	35.8	4	5.3	55	-12.5	NM	NM	
ML-23	6/4/2009	14:28	0.0	22.7	3.5	9.2	64.7	-13.9	19.83	777.38	
ML-23	6/17/2009	13:50	0.0	44.8	5.4	2.3	47.5	-13.5	NM	NM	Prior to portable hose extraction
ML-23	6/17/2009	19:30	-22.4	19.0	1.8	13.8	65.5	-34.8	NM	NM	End of portable extraction for day
ML-23	6/18/2009	9:16	-0.1	0.0	0.8	19.9	79.3	-15.7	NM	NM	Prior to portable extraction
ML-23	6/18/2009	19:30	-28.2	0.1	0.2	20.3	79.4	28.2	NM	NM	End of portable extraction for day
ML-23	6/19/2009	8:25	-0.6	0.0	1.2	19.6	79.2	-15.2	NM	NM	Prior to portable extraction
ML-23	6/19/2009	17:40	-13.5	25.9	2.2	9.7	62.9	-26.1	NM	NM	End of portable extraction for day
ML-23	6/20/2009	10:00	-1.2	0.0	0.0	20.6	79.4	-15.8	NM	NM	Prior to portable extraction
ML-23	6/20/2009	17:05	-4.6	32.1	3.9	4.9	58.7	-25.0	NM	NM	End of portable extraction for day
ML-23	6/21/2009	7:20	-18.5	8.1	9.9	17.0	73.2	-21.7	NM	NM	Prior to portable extraction
ML-23	6/21/2009	13:25	-9.3	0.0	0.0	20.6	79.4	-12.4	NM	NM	End of portable extraction for day
ML-23	6/22/2009	8:05	-1.8	0.0	0.1	20.6	79.3	-17.7	NM	NM	Start portable hose extraction
ML-23	6/22/2009	19:20	-24.8	0.9	0.2	20.1	78.3	-37.8	NM	NM	End portable hose extraction
ML-23	6/23/2009	11:00	0.1	0.0	0.3	20.4	79.3	-13.3	19.23	NM	Start portable hose extraction
ML-23	6/23/2009	17:00	-19.9	0.5	0.1	20.3	79.1	-31.2	NM	NM	End portable hose extraction
ML-23	6/24/2009	7:00	0.0	0.0	1.4	17.0	79.6	-13.2	NM	NM	Start portable hose extraction
ML-23	6/24/2009	15:15	-18.1	0.0	0.0	20.6	79.4	-22.4	NM	NM	End portable hose extraction
ML-23	6/25/2009	7:50	0.0	0.0	1.5	19.2	79.3	-15.9	NM	NM	Start portable hose extraction
ML-23	6/25/2009	19:35	-16.0	2.6	0.8	18.8	77.9	-28.4	NM	NM	End portable hose extraction
ML-23	6/26/2009	11:15	1.5	0.0	1.3	19.5	79.2	-11.2	NM	NM	Start portable hose extraction
ML-23	6/26/2009	18:30	-38.3	2.1	0.9	11.0	78.2	NM	NM	NM	End portable hose extraction

Appendix C
Gas Probe Monitoring Results
Greenbrook School Nature and Extent Characterization
Mallard Lake Landfill
AECOM Project No. 60139758.1800

Probe	Date	Time of measurement	Static Pressure (inches H2O)	Methane (%)	Carbon Dioxide (%)	Oxygen (%)	Balance Gas (%)	Post Purge Pressure (inches H2O)	Depth to Water (bMV)	Elevation of Groundwater Surface (ft MSL)	Qualifier
ML-23	6/27/2009	6:40	-.2	0.0	0.3	20.5	79.2	-13.5	NM	NM	Start portable hose extraction
ML-23	6/27/2009	18:35	-13.4	8.2	1.7	15.5	74.5	-19.7	NM	NM	End portable hose extraction
ML-23	6/28/2009	7:52	-0.9	0.0	0.7	20.2	79.1	-17.5	NM	NM	Start portable hose extraction
ML-23	6/28/2009	18:45	-2.2	0.0	0.0	20.8	79.2	-17.8	NM	NM	End portable hose extraction
ML-23	6/29/2009	7:50	-0.3	0.0	0.2	20.7	79.4	-17.0	NM	NM	Start portable hose extraction
ML-23	6/29/2009	9:20	-13.2	1.9	0.3	19.6	78.1	-28.4	NM	NM	End portable hose extraction
ML-23	6/30/2009	8:40	28.9	0.0	0.3	20.5	NM	28.6	NM	NM	Start portable hose extraction
ML-23	6/30/2009	18:30	-75.0	0.0	0.0	20.6	79.4	-81.4	NM	NM	End portable hose extraction
ML-23	7/1/2009	8:55	0.0	0.0	0.4	20.4	79.2	-15.2	NM	NM	Start portable hose extraction
ML-23	7/1/2009	17:52	27.7	0.0	0.2	20.9	78.9	27.6	NM	NM	End portable hose extraction
ML-23	7/2/2009	7:35	29.1	0.0	0.6	20.3	79.4	28.9	NM	NM	Start portable hose extraction
ML-23	7/2/2009	15:20	-25.6	0.0	0.0	20.7	79.3	-35.6	NM	NM	End portable hose extraction
ML-23	7/3/2009	8:20	0.0	0.0	0.4	20.3	79.3	-14.8	NM	NM	
ML-23	7/4/2009	9:48	-0.7	0	0.4	20.4	79.2	-8.7	NM	NM	
ML-23	7/5/2009	8:50	-0.2	0.2	0.6	19.9	79.9	-15.1	NM	NM	
ML-23	7/6/2009	8:05	-1.0	0.0	0.5	20.5	79.0	-13.3	NM	NM	
ML-23	7/7/2009	8:35	-0.4	0.0	0.3	20.4	79.3	-16.9	NM	NM	
ML-23	7/8/2009	7:16	0.0	0.0	0.4	20.2	79.4	-16.8	NM	NM	
ML-23	7/9/2009	7:05	-0.4	0.0	1.0	19.6	79.4	-13.6	NM	NM	
ML-23	7/10/2009	8:00	-1.3	0.0	0.5	20.0	79.5	-15.0	NM	NM	
ML-23	7/11/2009	10:40	-0.6	0.5	0.7	19.2	79.6	-9.2	NM	NM	
ML-23	7/12/2009	8:07	-2.3	2.4	1.0	17.5	79.2	-12.3	NM	NM	
ML-23	7/13/2009	7:58	-2.6	6.3	2.0	13.3	78.4	-12.5	NM	NM	
ML-23	7/14/2009	10:43	-1.0	1.1	0.5	18.6	79.5	-10.8	NM	NM	
ML-23	7/15/2009	9:30	1.3	2.9	1.1	17.1	78.9	-14.0	NM	NM	
ML-23	7/16/2009	6:20	-0.4	6.7	2.0	13.4	77.9	-15.2	NM	NM	
ML-23	7/17/2009	12:57	0.2	11.3	3.0	9.0	76.8	-8.9	NM	NM	
ML-23	7/18/2009	9:24	-2.2	13.8	3.9	7.0	75.3	-10.5	NM	NM	
ML-23	7/19/2009	7:55	-3.6	15.6	4.3	5.5	74.5	-19.2	NM	NM	
ML-23	7/20/2009	8:49	-4.0	17.4	4.7	3.8	74.1	-12.5	NM	NM	
ML-23	7/21/2009	9:40	-2.6	18.2	4.8	3.0	74.0	-19.3	NM	NM	
ML-23	7/22/2009	9:45	-2.1	19.5	4.9	2.4	73.2	-16.6	NM	NM	
ML-23	7/23/2009	7:23	-2.5	19.9	5.0	2.0	73.1	-15.9	NM	NM	
?3	7/24/2009	7:40	-3.2	20.4	5.2	01.6	72.5	-16.0	NM	NM	
3	7/25/2009	7:50	0.0	21.7	5.9	1.1	71.4	-9.3	NM	NM	
23	7/26/2009	8:00	-3.0	21.3	5.4	1.4	71.6	-15.4	NM	NM	
ML-23	7/27/2009	10:42	-2.9	21.0	5.1	1.7	72.0	-15.5	NM	NM	
ML-23	7/28/2009	9:42	-1.5	22.4	5.6	0.8	71.2	-16.3	NM	NM	
ML-23	7/29/2009	8:35	-2.6	22.6	5.8	0.8	70.7	-18.1	NM	NM	
ML-23	7/30/2009	8:33	-3.6	23.5	5.9	0.7	69.9	-3.9	NM	NM	Start portable hose extraction
ML-23	7/30/2009	17:45	-12.4	0.0	0.0	20.3	79.7	-26.5	NM	NM	End portable hose extraction
ML-23	7/31/2009	8:43	-7.6	0.0	0.2	20.9	78.9	-17.6	NM	M	Start portable hose extraction
ML-23	7/31/2009	17:05	-6.0	0.0	0.0	20.9	79.1	-14.5	NM	NM	End portable hose extraction
ML-23	8/1/2009	7:52	-0.1	0.0	0.2	20.8	79.1	-9.3	NM	NM	Start portable hose extraction
ML-23	8/1/2009	16:10	-11.4	9.4	2.8	12.2	75.5	-16.5	NM	NM	End portable hose extraction
ML-23	8/2/2009	7:36	0.0	0.0	0.2	20.8	79.0	-9.3	NM	NM	Start portable hose extraction
ML-23	8/2/2009	16:33	-5.8	0.0	0.0	21.1	78.9	NM	NM	NM	End portable hose extraction
ML-23	8/3/2009	7:55	0.0	0.0	0.0	20.7	79.3	-11.8	NM	NM	Start portable hose extraction
ML-23	8/3/2009	16:40	-4.9	0.0	0.0	21.1	78.9	-13.9	NM	NM	End portable hose extraction
ML-23	8/4/2009	7:36	0.0	0.0	0.2	20.6	79.2	-14.6	NM	NM	Start portable hose extraction
ML-23	8/4/2009	17:08	-22.4	0.0	0.0	21.2	78.7	-24.2	NM	NM	End portable hose extraction
ML-23	8/5/2009	18:55	-3.0	0.0	0.0	21.2	78.8	-11.9	NM	NM	Start portable hose extraction
ML-23	8/5/2009	9:05	0.0	0.0	0.1	20.6	79.3	-12.9	NM	NM	End portable hose extraction
ML-23	8/6/2009	9:25	-0.1	0.0	0.2	20.6	79.2	-16.6	NM	NM	
ML-23	8/7/2009	9:35	0.0	0.0	0.3	20.2	79.5	-13.1	NM	NM	
ML-23	8/8/2009	8:15	0.2	0.0	0.4	20.2	79.4	-14.7	NM	NM	
ML-23	8/9/2009	7:43	-0.1	0.6	0.4	19.4	79.5	-12.8	NM	NM	
ML-23	8/10/2009	8:01	0.1	0.0	0.2	20.5	79.3	-13.2	NM	NM	
ML-23	8/11/2009	8:24	-0.1	0.5	0.3	19.9	79.3	-13.3	NM	NM	
ML-23	8/12/2009	10:33	0.1	0.0	0.2	20.4	79.4	-19.6	NM	NM	
ML-23	8/13/2009	7:35	0.0	0.0	0.2	20.7	79.1	-9.8	19.32	777.89	
ML-23	8/14/2009	8:00	0.0	0.0	0.2	20.7	79.1	-11.2	NM	NM	
ML-23	8/15/2009	8:59	0.0	0.0	0.2	20.6	79.2	-15.4	NM	NM	
ML-23	8/16/2009	7:45	0.0	0.4	0.2	20.0	79.4	-16.8	NM	NM	
ML-23	8/17/2009	7:55	-0.9	1.2	0.5	18.9	79.4	-12.3	NM	NM	
ML-23	8/18/2009	8:15	-3.1	6.3	2.6	11.8	79.2	-18.4	NM	NM	
ML-23	8/19/2009	11:42	-3.0	10.4	3.6	6.6	79.4	-14.1	NM	NM	
ML-23	8/20/2009	10:08	1.1	1.4	0.6	18.3	79.5	-9.7	NM	NM	
ML-23	8/21/2009	9:03	-0.8	4.8	1.8	14.1	79.3	-10.9	NM	NM	
ML-23	8/22/2009	7:14	-2.7	0.0	0.1	20.8	79.1	-12.7	NM	NM	
ML-23	8/23/2009	8:27	0.0	0.0	0.0	20.5	79.4	-10.1	NM	NM	
ML-23	8/24/2009	11:51	0.3	0.0	0.0	20.5	79.5	-13.3	NM	NM	
ML-23	8/25/2009	9:51	0.0	0.0	0.0	20.6	79.4	-8.3	NM	NM	
?3	8/26/2009	8:55	-2.0	0.0	0.0	20.4	79.6	-14.8	NM	NM	
3	8/27/2009	9:09	-4.0	0.0	0.0	20.2	79.8	-15.4	NM	NM	
23	8/28/2009	9:20	-1.2	0.0	0.0	20.3	79.7	-13.3	NM	NM	
ML-23	8/29/2009	8:48	0.0	0.1	0.1	20.3	79.5	-11.6	NM	NM	
ML-23	8/30/2009	9:04	0.0	0.0	0.0	20.6	79.4	-9.3	NM	NM	

Appendix C
Gas Probe Monitoring Results
Greenbrook School Nature and Extent Characterization
Mallard Lake Landfill
AECOM Project No. 60139758.1800

Probe	Date	Time of measurement	Static Pressure (inches H2O)	Methane (%)	Carbon Dioxide (%)	Oxygen (%)	Balance Gas (%)	Post Purge Pressure (inches H2O)	Depth to Water (bMV)	Elevation of Groundwater Surface (ft MSL)	Qualifier
ML-23	8/31/2009	9:10	-0.8	0.0	0.0	20.6	79.4	-11.7	NM	NM	
ML-24	3/30/2009	9:50	NM	0.0	0.3	19.2	80.5	NM	NM	NM	Open hole reading
ML-24	4/1/2009	17:15	10.9	0.0	0.1	18.6	81.3	0.0	20.21	ND	
ML-24	4/6/2009	11:48	0.0	0.2	0.8	16.9	82.1	-80.2	19.11	ND	
ML-24	4/8/2009	13:35	2.8	0.0	0.5	16.5	83.0	-63.2	19.00	ND	
ML-24	5/29/2009	17:50	0.0	0	2.6	4.4	93	-76.0	NM	NM	
ML-24	6/4/2009	16:00	0.0	0.1	1.5	10.0	88.4	-63.9	19.00	768.65	
ML-24	8/13/2009	11:04	0.2	0.0	0.1	20.2	79.7	-44.2	17.65	770.00	
ML-25D	9/9/2006	10:38	0.1	0.0	0.1	20.4	79.5	-58.6	36.21	750.46	
ML-25D	4/6/2009	13:05	0.0	0.0	0.1	20.5	79.4	4.1	33.66	ND	
ML-25D	4/8/2009	13:45	1.4	0.0	0.0	20.0	80.0	-31.2	34.70	ND	
ML-25D	6/10/2009	17:25	-0.5	0.0	0.0	20.2	79.8	-46.5	34.22	752.45	
ML-25D	8/13/2009	11:08	0.2	0.0	0.2	20.0	79.8	-47.9	36.45	750.22	
ML-25I	4/6/2009	13:18	1.4	0.0	0.1	20.4	79.5	-15.0	ND	ND	Obstruction @ 13.47
ML-25I	4/8/2009	13:55	1.6	0.0	0.0	20.1	79.9	-59.4	ND	ND	Obstruction in casing
ML-25I	6/4/2009	16:20	1.4	0.1	0.0	19.4	80.5	-70.7	NM	NM	Obstruction in probe
ML-25I	8/13/2009	11:13	0.2	0.0	0.2	20.2	79.6	-72.2	14.68	772.26	
ML-25S	4/6/2009	13:12	0.0	0.0	0.1	20.4	79.5	-6.4	13.18	ND	
ML-25S	4/8/2009	13:50	1.6	0.0	0.0	20.0	80.0	-65.8	13.20	ND	
ML-25S	6/4/2009	16:15	0.0	0.1	0.4	19.0	80.5	-62.5	14.57	772.33	
ML-25S	8/13/2009	11:20	0.2	0.0	0.1	20.4	79.5	-51.6	Dry to 13.45	<773.45	
ML-26I	4/6/2009	14:03	1.4	0.0	0.2	20.2	79.6	-13.6	14.41	ND	
ML-26I	4/8/2009	14:25	1.2	0.0	0.1	19.9	80.0	-65.8	13.50	ND	
ML-26I	6/4/2009	16:20	0.0	0.0	0.6	19.8	79.6	-43.4	13.62	766.80	
ML-26I	8/13/2009	10:12	0.0	0.0	0.0	20.7	79.3	-14.7	14.54	765.88	
ML-26S	4/6/2009	13:55	1.4	0.0	0.3	19.9	79.8	-13.6	12.62	ND	
ML-26S	4/8/2009	14:30	1.2	0.0	0.2	19.6	80.2	-85.0	13.80	ND	
ML-26S	6/4/2009	16:10	0.0	0.0	0.0	20.5	79.5	-29.6	13.55	766.85	
ML-26S	8/13/2009	10:20	0.0	0.0	0.0	20.7	79.3	-27.6	14.41	765.99	
ML-27	4/3/2009	11:52	NM	0.0	0.2	20.7	79.1	NM	NM	NM	Open hole reading
ML-27	4/6/2009	13:45	4.1	0.0	0.7	18.3	-81.0	-4.1	Dry to 16.57	ND	Obstruction in casing
ML-27	4/8/2009	14:20	18.2	0.0	0.4	17.5	82.1	-73.3	ND	ND	Obstruction in casing
ML-27	6/4/2009	16:00	0.5	0.0	0.2	18.7	81.1	-67.8	16.13	767.58	
ML-27	8/13/2009	10:00	0.0	0.0	0.0	20.4	79.6	-56.8	16.14	767.57	
ML-28	4/3/2009	9:15	NM	0.0	0.2	20.7	79.1	NM	NM	NM	Open hole reading
ML-28	4/6/2009	12:37	0.0	0.0	0.1	20.6	79.3	-1.3	17.92	ND	
ML-28	4/8/2009	14:35	1.2	0.0	0.2	19.5	80.4	-33.1	16.00	ND	
ML-28	6/4/2009	14:00	0.0	0.0	0.2	17.9	81.9	-78.9	NM	NM	
ML-28	8/13/2009	12:15	0.1	0.0	0.3	19.6	79.9	-66.5	16.17	781.23	
ML-29	3/30/2009	12:00	NM	4.5	3.5	2.5	89.5	NM	NM	NM	Open hole reading. CH4=4.7% after sealing
ML-29	4/1/2009	9:53	4.1	3.5	4.7	4.9	92.7	0.0	18.81	ND	
ML-29	4/2/2009	8:00	1.4	3.2	4.7	2.3	89.8	-2.7	18.70	ND	
ML-29	4/6/2009	11:58	2.7	1.3	3.3	6.1	89.3	-2.7	18.05	ND	
ML-29	4/8/2009	13:25	11.2	1.5	4.0	0.0	74.6	-7.0	18.20	ND	
ML-29	5/6/2009	14:46	4.1	1.5	2.9	2.0	93.6	-10.9	16.78	771.68	
ML-29	5/14/2009	15:12	0.6	1.1	2.8	5.6	90.5	-26.7	16.60	771.86	
ML-29	6/4/2009	15:45	0.1	1.0	1.7	12.7	84.6	-29.3	15.94	772.52	
ML-29	8/13/2009	10:49	0.1	1.7	1.8	11.6	84.9	-33.6	15.31	773.15	
ML-29S	3/31/2009	16:55	NM	NM	NM	NM	NM	NM	0.5	ND	Water in GA-90 hose
ML-29S	4/1/2009	16:34	0.0	NM	NM	NM	NM	NM	1.10	ND	
ML-29S	4/6/2009	12:05	-2.7	NM	NM	NM	NM	NM	1.00	ND	Gas composition not mesured due to WL
ML-29S	4/8/2009	13:27	1.3	0.0	0.0	20.2	79.8	-23.2	0.80	ND	
ML-29S	6/4/2009	15:40	0.0	0.0	0.0	20.2	79.8	-25.4	1.00	787.42	
ML-29S	8/13/2009	10:55	0.0	0.0	0.0	20.8	79.2	-17.6	1.75	786.67	
ML-30	3/30/2009	13:41	NM	0.0	0.2	20.5	79.3	NM	NM	NM	Open hole reading
ML-30	4/1/2009	16:23	0.0	0.0	0.1	17.3	82.6	-6.8	14.12	ND	
ML-30	4/6/2009	12:11	1.3	0.0	0.3	17.8	81.9	-13.6	13.93	ND	
ML-30	4/8/2009	13:35	-0.6	0.0	0.2	16.8	83.0	-87.0	13.50	ND	
ML-30	6/4/2009	16:10	0.0	0.1	0.1	18.0	81.8	-69.4	13.54	774.37	
ML-30	8/13/2009	10:44	0.3	0.0	0.0	20.4	79.6	-64.4	10.95	776.96	
ML-31	3/30/2009	15:58	NM	0.0	0.0	21.1	78.9	NM	NM	NM	Open hole reading
ML-31	4/1/2009	16:16	0.0	0.0	0.1	16.0	83.9	-6.8	14.83	ND	
ML-31	4/6/2009	12:20	0.0	0.0	0.1	20.7	79.2	0.0	15.82	ND	
ML-31	4/8/2009	14:20	3.3	0.0	0.0	20.0	80.0	-27.0	15.90	ND	
ML-31	6/5/2009	14:05	0.0	0.0	0.0	20.2	79.8	-10.9	15.25	772.56	
ML-31	8/13/2009	10:30	0.0	0.0	0.0	20.9	79.2	-10.8	14.48	773.33	
ML-32	4/2/2009	16:45	NM	0.2	3.5	0.0	96.3	NM	NM	NM	Open hole reading
ML-32	4/6/2009	12:43	10.9	0.3	3.5	0.0	96.2	2.4	23.90	ND	
ML-32	4/8/2009	14:40	18.8	0.0	3.2	0.0	96.8	-0.6	23.70	ND	
ML-32	6/4/2009	15:20	4.6	0.0	2.7	0.0	97.3	-25.8	NM	NM	
ML-32	8/14/2009	9:23	5.3	0.0	2.8	0.1	97.1	-29.1	19.32	777.53	
ML-33	3/31/2009	13:33	NM	0.0	0.2	20.6	79.2	NM	NM	NM	Open hole reading
ML-33	4/1/2009	15:56	4.1	0.0	0.0	19.9	80.1	-1.4	26.85	ND	
ML-33	4/6/2009	13:28	1.4	0.0	0.2	20.0	79.8	-4.1	19.90	ND	
ML-33	4/8/2009	14:00	28.1	0.0	1.0	15.0	84.0	-10.6	18.60	ND	
ML-33	6/4/2009	16:30	1.1	0.0	0.8	19.1	80.1	-60.2	9.12	776.79	
ML-33	8/13/2009	9:52	0.0	0.0	0.1	20.2	79.6	-33.3	13.68	772.23	
ML-34	4/1/2009	16:04	8.2	0.0	0.0	16.6	83.4	-6.8	25.28	ND	

Appendix C
Gas Probe Monitoring Results
Greenbrook School Nature and Extent Characterization
Mallard Lake Landfill
AECOM Project No. 60139758.1800

Probe	Date	Time of measurement	Static Pressure (inches H2O)	Methane (%)	Carbon Dioxide (%)	Oxygen (%)	Balance Gas (%)	Post Purge Pressure (inches H2O)	Depth to Water (bMV)	Elevation of Groundwater Surface (ft MSL)	Qualifier
ML-34	4/6/2009	13:36	0.0	0.0	1.0	12.1	86.9	-19.0	20.13	ND	
ML-34	4/8/2009	14:08	2.1	0.0	0.5	15.8	83.5	-55.0	20.20	ND	
ML-34	6/5/2009	14:35	0.0	0.1	1.4	12.1	86.4	-61.2	20.15	766.58	
ML-34	8/13/2009	9:47	-0.3	0.0	0.0	20.3	79.6	-50.4	19.32	767.41	
ML-36	4/4/2009	9:07	NM	0.0	3.1	0.0	96.9	NM	NM	NM	Open hole reading
ML-36	4/6/2009	12:28	12.2	0.2	2.8	0.0	97.0	10.9	19.95	ND	
ML-36	4/8/2009	14:15	13.5	0.0	2.0	0.0	97.5	4.3	20.30	ND	
ML-36	6/5/2009	14:20	4.1	0.1	2.3	0.0	97.6	-8.2	21.92	763.95	
ML-36	8/13/2009	9:10	0.0	0.0	0.4	20.4	79.2	-4.8	20.60	765.27	
MW-204D	10/14/2008	14:40	NM	0.0	0.1	20.3	79.6	NM	26.31	750.92	Temp sealed with plastic bag. H2S=0.0 VOC=0.0
MW-204D	2/9/2009	10:34	0.0	0.0	0.2	20.7	79.1	NM	25.58	751.65	Readings taken with plastic bag seal
MW-204D	3/5/2009	14:40	0.0	0.0	0.0	20.8	79.2	0.0	26.78	750.45	
MW-204D	4/8/2009	10:09	0.4	0.0	0.0	20.3	79.7	-17.0	25.33	751.90	
MW-204ES	10/3/2008	14:45	0.0	0.0	0.0	20.8	79.2	-16.2	18.61	753.66	
MW-204ES	2/9/2009	10:44	NM	0.0	0.4	20.0	79.6	NM	NM	NM	WL not taken due to bentonite/sand heave and obstruction
MW-204ES	3/5/2009	14:35	0.0	0.0	0.2	20.5	79.3	0.0	14.85	757.42	
MW-204ES	4/8/2009	10:10	0.0	0.0	0.0	20.5	79.5	-14.0	13.55	758.72	
MW-204ES	6/5/2009	13:40	0.0	0.0	0.0	20.1	79.9	NM	13.21	759.06	
MW-204ES	8/14/2009	9:40	0.0	0.0	1.5	19.3	79.2	-6.9	14.14	758.13	
MW-204S	10/14/2008	14:30	NM	11.8	3.4	14.8	70.1	NM	22.17	754.24	Temp sealed with plastic bag. H2S=0.0 VOC=0.0
MW-204S	10/24/2008	12:34	NM	40.0	8.6	6.6	45.6	NM	NM	NM	1 hour summa can collected. 1 hr ambient summa can collected
MW-204S	2/9/2009	10:38	NM	30.3	7.1	10.6	52.0	NM	21.49	754.92	Readings taken with plastic bag seal
MW-204S	3/5/2009	14:45	0.0	15.0	3.0	15.7	66.3	0.0	21.09	756.14	
MW-204S	4/8/2009	10:03	0.0	12.8	4.7	12.0	70.3	-13.0	20.07	756.34	
MW-205	10/14/2008	14:20	NM	0.0	0.0	20.1	79.9	NM	26.00	759.80	Temp sealed with plastic bag. H2S=0.0 VOC=0.0
MW-205	2/9/2009	10:25	NM	0.0	0.2	20.6	79.2	NM	22.72	763.08	Readings taken with plastic bag seal
MW-205	3/5/2009	14:25	0.0	0.0	0.0	20.8	79.2	0.0	23.41	762.39	

Notes:
NM - Not measured
ND - Not determined
bMV - Below mid-valve. The midvalve is where water level measurements are taken
L - Feet above mean sea level

Appendix D

Summa Canister Monitoring Results

Appendix D-1 School Summa Results

Appendix D-2 ML-29 Summa Results

Appendix D-1 School Summa Results

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ANALYTICAL LABORATORY

39 Spruce Street ° East Longmeadow, MA 01028 ° FAX 413/525-6405 ° TEL. 413/525-2332

REPORT DATE 4/8/2009

AECOM ENVIRONMENT - VERNON HILLS, IL
750 CORPORATE WOODS PARKWAY
VERNON HILLS, IL 60061
ATTN: STEVE KORNDER

CONTRACT NUMBER:
PURCHASE ORDER NUMBER:

PROJECT NUMBER: 13069-002-2500

ANALYTICAL SUMMARY

LIMS BAT #: LIMT-24454
JOB NUMBER: 13069-002/2500

PROJECT LOCATION: GREENBROOK SCHOOL

FIELD SAMPLE #	LAB ID	MATRIX	SAMPLE DESCRIPTION	TEST	Subcontract Lab (if any) Cert. Nos.
IA-1	09B10368	AIR	8-HR Air	air special test	
IA-1	09B10368	AIR	8-HR Air	to-15 ppbv	
IA-1	09B10368	AIR	8-HR Air	to-15 ug/m3	
IA1-DUP	09B10369	AIR	8-HR Air	air special test	
IA1-DUP	09B10369	AIR	8-HR Air	to-15 ppbv	
IA1-DUP	09B10369	AIR	8-HR Air	to-15 ug/m3	
IA2	09B10370	AIR	8-HR Air	air special test	
IA2	09B10370	AIR	8-HR Air	to-15 ppbv	
IA2	09B10370	AIR	8-HR Air	to-15 ug/m3	
OA-1	09B10367	AIR	8-HR Air	air special test	
OA-1	09B10367	AIR	8-HR Air	to-15 ppbv	
OA-1	09B10367	AIR	8-HR Air	to-15 ug/m3	
OA2	09B10375	AIR	8-HR Sub Slab	air special test	
OA2	09B10375	AIR	8-HR Sub Slab	to-15 ppbv	
OA2	09B10375	AIR	8-HR Sub Slab	to-15 ug/m3	
SS1	09B10371	AIR	8-HR Sub Slab	air special test	
SS1	09B10371	AIR	8-HR Sub Slab	to-15 ppbv	
SS1	09B10371	AIR	8-HR Sub Slab	to-15 ug/m3	
SS2	09B10372	AIR	8-HR Sub Slab	air special test	
SS2	09B10372	AIR	8-HR Sub Slab	to-15 ppbv	
SS2	09B10372	AIR	8-HR Sub Slab	to-15 ug/m3	
SS3	09B10373	AIR	8-HR Sub Slab	air special test	
SS3	09B10373	AIR	8-HR Sub Slab	to-15 ppbv	
SS3	09B10373	AIR	8-HR Sub Slab	to-15 ug/m3	
SS4	09B10374	AIR	8-HR Sub Slab	air special test	
SS4	09B10374	AIR	8-HR Sub Slab	to-15 ppbv	
SS4	09B10374	AIR	8-HR Sub Slab	to-15 ug/m3	

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REPORT DATE 4/8/2009

AECOM ENVIRONMENT - VERNON HILLS, IL
750 CORPORATE WOODS PARKWAY
VERNON HILLS, IL 60061
ATTN: STEVE KORNDER

CONTRACT NUMBER:
PURCHASE ORDER NUMBER:

PROJECT NUMBER: 13069-002-2500

ANALYTICAL SUMMARY

LIMS BAT #: LIMT-24454
JOB NUMBER: 13069-002/2500

Comments :

LIMS BATCH NO. : LIMT-24454

In method TO-15, method blank-131491 contained Acetone at 0.17 ppbv = 0.41 ug/m3, Methylene Chloride at 0.11 ppbv = 0.40 ug/m3, Ethanol at 0.20 ppbv = 0.39 ug/m3 and Isopropanol at 0.05 ppbv = 0.13 ug/m3.

In method TO-15, any reported result for Dichlorotetrafluoroethane and Bromomethane is estimated and likely to be biased on the low side based on continuing calibration bias.

In method TO-15, any reported result for Bromomethane is likely to be biased on the low side based on laboratory fortified blank recovery bias.

In method TO-15, for samples 09B10368 - 09B10370, reported result for Ethanol is estimated. Values are reported over the verified linear calibration range.

The results of analyses performed are based on samples as submitted to the laboratory and relate only to the items collected and tested.

The CON-TEST Environmental Laboratory operates under the following certifications and accreditations. AIHA accreditations only apply to NIOSH methods and Environmental Lead Analyses.

AIHA 100033	AIHA ELLAP (LEAD) 100033	NORTH CAROLINA CERT. # 652
MASSACHUSETTS MA0100	NEW HAMPSHIRE NELAP 2516	NEW JERSEY NELAP NJ MA007 (AIR)
CONNECTICUT PH-0567	VERMONT DOH (LEAD) No. LL015036	FLORIDA DOH E871027 (AIR)
NEW YORK ELAP/NELAP 10899	RHODE ISLAND (LIC. No. 112)	

I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

MM Leuk 4/8/09
SIGNATURE DATE

Tod Kopyscinski
Air Laboratory Manager

Michael Erickson
Assistant Laboratory Director

Edward Denson
Technical Director

Daren Damboragian
Organics Department Supervisor

* See end of data tabulation for notes and comments pertaining to this sample

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STEVE KORNDER
AECOM ENVIRONMENT - VERNON HILLS, IL
750 CORPORATE WOODS PARKWAY
VERNON HILLS, IL 60061

4/8/2009

Purchase Order No.:

Project Number: 13069-002-2500
LIMS-BAT #: LIMT-24454
Job Number: 13069-002/2500

Project Location: GREENBROOK SCHOOL
Date Received: 4/3/2009

Field Sample # : IA-1

Sample ID : *09B10368

‡Sampled : 4/1/2009
8-HR Air

Sample Matrix: AIR
Sample Medium : SUMMA

	Units	Results	RL	Method	Date Analyzed	Analyst
air specia						
SPECIAL TEST					04/06/09	XC
SEE REPORT PAGE FOR MORE INFORMATION.						
to-15 ppbv				EPA TO-15		
Acetone	PPBv	12	0.04		04/03/09	XC
Benzene	PPBv	0.25	0.04		04/03/09	XC
Benzyl Chloride	PPBv	ND	0.04		04/03/09	XC
Bromodichloromethane	PPBv	ND	0.04		04/03/09	XC
Bromoform	PPBv	ND	0.04		04/03/09	XC
Bromomethane	PPBv	ND	0.04		04/03/09	XC
1,3-Butadiene	PPBv	ND	0.04		04/03/09	XC
2-Butanone (MEK)	PPBv	1.1	0.04		04/03/09	XC
Carbon Disulfide	PPBv	ND	0.04		04/03/09	XC
Carbon Tetrachloride	PPBv	0.09	0.04		04/03/09	XC
Chlorobenzene	PPBv	ND	0.04		04/03/09	XC
Chlorodibromomethane	PPBv	ND	0.04		04/03/09	XC
Chloroethane	PPBv	ND	0.04		04/03/09	XC
Chloroform	PPBv	ND	0.04		04/03/09	XC
Chloromethane	PPBv	0.76	0.04		04/03/09	XC
Cyclohexane	PPBv	0.10	0.04		04/03/09	XC
1,2-Dibromoethane	PPBv	ND	0.04		04/03/09	XC
1,2-Dichlorobenzene	PPBv	ND	0.04		04/03/09	XC
1,3-Dichlorobenzene	PPBv	ND	0.04		04/03/09	XC
1,4-Dichlorobenzene	PPBv	0.07	0.04		04/03/09	XC
Dichlorodifluoromethane	PPBv	1.6	0.04		04/03/09	XC
1,1-Dichloroethane	PPBv	ND	0.04		04/03/09	XC
1,2-Dichloroethane	PPBv	0.04	0.04		04/03/09	XC
1,1-Dichloroethylene	PPBv	ND	0.04		04/03/09	XC
cis-1,2-Dichloroethylene	PPBv	ND	0.04		04/03/09	XC
t-1,2-Dichloroethylene	PPBv	ND	0.04		04/03/09	XC
1,2-Dichloropropane	PPBv	ND	0.04		04/03/09	XC
cis-1,3-Dichloropropene	PPBv	ND	0.04		04/03/09	XC
trans-1,3-Dichloropropene	PPBv	ND	0.04		04/03/09	XC
1,2-Dichlorotetrafluoroethane (114)	PPBv	ND	0.04		04/03/09	XC
Ethanol	PPBv	43	0.04		04/03/09	XC
Ethyl Acetate	PPBv	0.24	0.04		04/03/09	XC

RL = Reporting Limit

ND = Not Detected at or above the Reporting Limit

NM = Not Measured

* = See end of report for comments and notes applying to this sample

‡ See attached chain-of-custody record for time sampled

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STEVE KORNDER
AECOM ENVIRONMENT - VERNON HILLS, IL
750 CORPORATE WOODS PARKWAY
VERNON HILLS, IL 60061

Purchase Order No.:

Project Number: 13069-002-2500
LIMS-BAT #: LIMT-24454
Job Number: 13069-002/2500

Project Location: GREENBROOK SCHOOL
Date Received: 4/3/2009

Field Sample # : IA-1

Sample ID : *09B10368

‡Sampled : 4/1/2009
8-HR Air

Sample Matrix: AIR
Sample Medium : SUMMA

	Units	Results	RL	Method	Date Analyzed	Analyst
to-15 ppbv				EPA TO-15		
Ethylbenzene	PPBv	0.12	0.04		04/03/09	XC
4-Ethyl Toluene	PPBv	0.05	0.04		04/03/09	XC
n-Heptane	PPBv	0.21	0.04		04/03/09	XC
Hexachlorobutadiene	PPBv	ND	0.07		04/03/09	XC
Hexane	PPBv	0.37	0.04		04/03/09	XC
2-Hexanone	PPBv	0.11	0.04		04/03/09	XC
Isopropanol	PPBv	6.9	0.04		04/03/09	XC
Methyl tert-Butyl Ether (MTBE)	PPBv	ND	0.04		04/03/09	XC
Methylene Chloride	PPBv	0.97	0.04		04/03/09	XC
4-Methyl-2-Pentanone (MIBK)	PPBv	0.47	0.04		04/03/09	XC
Propene	PPBv	ND	0.04		04/03/09	XC
Styrene	PPBv	0.07	0.04		04/03/09	XC
1,1,2,2-Tetrachloroethane	PPBv	ND	0.04		04/03/09	XC
Tetrachloroethylene	PPBv	ND	0.04		04/03/09	XC
Tetrahydrofuran	PPBv	ND	0.04		04/03/09	XC
Toluene	PPBv	0.57	0.04		04/03/09	XC
1,2,4-Trichlorobenzene	PPBv	ND	0.04		04/03/09	XC
1,1,1-Trichloroethane	PPBv	ND	0.04		04/03/09	XC
1,1,2-Trichloroethane	PPBv	ND	0.04		04/03/09	XC
Trichloroethylene	PPBv	ND	0.04		04/03/09	XC
Trichlorofluoromethane (Freon 11)	PPBv	0.26	0.04		04/03/09	XC
1,1,2-Trichloro-1,2,2-Trifluoroethane	PPBv	0.07	0.04		04/03/09	XC
1,2,4-Trimethylbenzene	PPBv	0.17	0.04		04/03/09	XC
1,3,5-Trimethylbenzene	PPBv	0.05	0.04		04/03/09	XC
Vinyl Acetate	PPBv	ND	0.04		04/03/09	XC
Vinyl Chloride	PPBv	ND	0.04		04/03/09	XC
m/p-Xylene	PPBv	0.37	0.07		04/03/09	XC
o-Xylene	PPBv	0.11	0.04		04/03/09	XC
to-15 ug/m				EPA TO-15		
Acetone	ug/m3	28	0.09		04/03/09	XC
Benzene	ug/m3	0.81	0.12		04/03/09	XC
Benzyl Chloride	ug/m3	ND	0.19		04/03/09	XC
Bromodichloromethane	ug/m3	ND	0.24		04/03/09	XC
Bromoform	ug/m3	ND	0.36		04/03/09	XC
Bromomethane	ug/m3	ND	0.14		04/03/09	XC

RL = Reporting Limit

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NM = Not Measured

* = See end of report for comments and notes applying to this sample

‡ See attached chain-of-custody record for time sampled

con-test®
ANALYTICAL LABORATORY
39 Spruce Street ° East Longmeadow, MA 01028 ° FAX 413/525-6405 ° TEL. 413/525-2332

STEVE KORNDER
AECOM ENVIRONMENT - VERNON HILLS, IL
750 CORPORATE WOODS PARKWAY
VERNON HILLS, IL 60061

4/8/2009

Purchase Order No.:

Project Number: 13069-002-2500
LIMS-BAT #: LIMT-24454
Job Number: 13069-002/2500

Project Location: GREENBROOK SCHOOL
Date Received: 4/3/2009

Field Sample # : IA-1

Sample ID : *09B10368

‡Sampled : 4/1/2009
8-HR Air

Sample Matrix: AIR
Sample Medium : SUMMA

	Units	Results	RL	Method	Date Analyzed	Analyst
to-15 ug/m				EPA TO-15		
1,3-Butadiene	ug/m3	ND	0.08		04/03/09	XC
2-Butanone (MEK)	ug/m3	3.3	0.11		04/03/09	XC
Carbon Disulfide	ug/m3	ND	0.12		04/03/09	XC
Carbon Tetrachloride	ug/m3	0.55	0.22		04/03/09	XC
Chlorobenzene	ug/m3	ND	0.17		04/03/09	XC
Chlorodibromomethane	ug/m3	ND	0.31		04/03/09	XC
Chloroethane	ug/m3	ND	0.10		04/03/09	XC
Chloroform	ug/m3	ND	0.17		04/03/09	XC
Chloromethane	ug/m3	1.6	0.07		04/03/09	XC
Cyclohexane	ug/m3	0.34	0.12		04/03/09	XC
1,2-Dibromoethane	ug/m3	ND	0.27		04/03/09	XC
1,2-Dichlorobenzene	ug/m3	ND	0.21		04/03/09	XC
1,3-Dichlorobenzene	ug/m3	ND	0.21		04/03/09	XC
1,4-Dichlorobenzene	ug/m3	0.43	0.21		04/03/09	XC
Dichlorodifluoromethane	ug/m3	8.1	0.18		04/03/09	XC
1,1-Dichloroethane	ug/m3	ND	0.14		04/03/09	XC
1,2-Dichloroethane	ug/m3	0.14	0.14		04/03/09	XC
1,1-Dichloroethylene	ug/m3	ND	0.14		04/03/09	XC
cis-1,2-Dichloroethylene	ug/m3	ND	0.14		04/03/09	XC
t-1,2-Dichloroethylene	ug/m3	ND	0.14		04/03/09	XC
1,2-Dichloropropane	ug/m3	ND	0.17		04/03/09	XC
cis-1,3-Dichloropropene	ug/m3	ND	0.16		04/03/09	XC
trans-1,3-Dichloropropene	ug/m3	ND	0.16		04/03/09	XC
1,2-Dichlorotetrafluoroethane (114)	ug/m3	ND	0.25		04/03/09	XC
Ethanol	ug/m3	81	0.07		04/03/09	XC
Ethyl Acetate	ug/m3	0.86	0.13		04/03/09	XC
Ethylbenzene	ug/m3	0.51	0.16		04/03/09	XC
4-Ethyl Toluene	ug/m3	0.23	0.18		04/03/09	XC
n-Heptane	ug/m3	0.85	0.14		04/03/09	XC
Hexachlorobutadiene	ug/m3	ND	0.75		04/03/09	XC
Hexane	ug/m3	1.3	0.13		04/03/09	XC
2-Hexanone	ug/m3	0.47	0.14		04/03/09	XC
Isopropanol	ug/m3	17	0.09		04/03/09	XC
Methyl tert-Butyl Ether (MTBE)	ug/m3	ND	0.13		04/03/09	XC
Methylene Chloride	ug/m3	3.4	0.12		04/03/09	XC

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ANALYTICAL LABORATORY
39 Spruce Street ° East Longmeadow, MA 01028 ° FAX 413/525-6405 ° TEL. 413/525-2332

STEVE KORNDER
AECOM ENVIRONMENT - VERNON HILLS, IL
750 CORPORATE WOODS PARKWAY
VERNON HILLS, IL 60061

4/8/2009

Purchase Order No.:

Project Number: 13069-002-2500
LIMS-BAT #: LIMT-24454
Job Number: 13069-002/2500

Project Location: GREENBROOK SCHOOL
Date Received: 4/3/2009

Field Sample # : IA-1

Sample ID : *09B10368

‡Sampled : 4/1/2009
8-HR Air

Sample Matrix: AIR
Sample Medium : SUMMA

	Units	Results	RL	Method	Date Analyzed	Analyst
to-15 ug/m				EPA TO-15		
4-Methyl-2-Pentanone (MIBK)	ug/m3	1.9	0.14		04/03/09	XC
Propene	ug/m3	ND	0.07		04/03/09	XC
Styrene	ug/m3	0.29	0.15		04/03/09	XC
1,1,2,2-Tetrachloroethane	ug/m3	ND	0.24		04/03/09	XC
Tetrachloroethylene	ug/m3	ND	0.24		04/03/09	XC
Tetrahydrofuran	ug/m3	ND	0.11		04/03/09	XC
Toluene	ug/m3	2.2	0.14		04/03/09	XC
1,2,4-Trichlorobenzene	ug/m3	ND	0.26		04/03/09	XC
1,1,1-Trichloroethane	ug/m3	ND	0.19		04/03/09	XC
1,1,2-Trichloroethane	ug/m3	ND	0.19		04/03/09	XC
Trichloroethylene	ug/m3	ND	0.19		04/03/09	XC
Trichlorofluoromethane	ug/m3	1.5	0.20		04/03/09	XC
1,1,2-Trichloro-1,2,2-Trifluoroethane	ug/m3	0.52	0.27		04/03/09	XC
1,2,4-Trimethylbenzene	ug/m3	0.84	0.18		04/03/09	XC
1,3,5-Trimethylbenzene	ug/m3	0.24	0.18		04/03/09	XC
Vinyl Acetate	ug/m3	ND	0.13		04/03/09	XC
Vinyl Chloride	ug/m3	ND	0.10		04/03/09	XC
m/p-Xylene	ug/m3	1.6	0.31		04/03/09	XC
o-Xylene	ug/m3	0.48	0.16		04/03/09	XC

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STEVE KORNDER
AECOM ENVIRONMENT - VERNON HILLS, IL
750 CORPORATE WOODS PARKWAY
VERNON HILLS, IL 60061

4/8/2009

Purchase Order No.:

Project Number: 13069-002-2500
LIMS-BAT #: LIMT-24454
Job Number: 13069-002/2500

Project Location: GREENBROOK SCHOOL
Date Received: 4/3/2009

Field Sample # : IA1-DUP

Sample ID : *09B10369

‡Sampled : 4/1/2009
8-HR Air

Sample Matrix: AIR
Sample Medium : SUMMA

	Units	Results	RL	Method	Date Analyzed	Analyst
air specia						
SPECIAL TEST					04/06/09	XC
SEE REPORT PAGE FOR MORE INFORMATION.						
to-15 ppbv				EPA TO-15		
Acetone	PPBv	10	0.04		04/03/09	XC
Benzene	PPBv	0.23	0.04		04/03/09	XC
Benzyl Chloride	PPBv	ND	0.04		04/03/09	XC
Bromodichloromethane	PPBv	ND	0.04		04/03/09	XC
Bromoform	PPBv	ND	0.04		04/03/09	XC
Bromomethane	PPBv	ND	0.04		04/03/09	XC
1,3-Butadiene	PPBv	ND	0.04		04/03/09	XC
2-Butanone (MEK)	PPBv	0.95	0.04		04/03/09	XC
Carbon Disulfide	PPBv	ND	0.04		04/03/09	XC
Carbon Tetrachloride	PPBv	0.08	0.04		04/03/09	XC
Chlorobenzene	PPBv	ND	0.04		04/03/09	XC
Chlorodibromomethane	PPBv	ND	0.04		04/03/09	XC
Chloroethane	PPBv	ND	0.04		04/03/09	XC
Chloroform	PPBv	ND	0.04		04/03/09	XC
Chloromethane	PPBv	0.70	0.04		04/03/09	XC
Cyclohexane	PPBv	0.09	0.04		04/03/09	XC
1,2-Dibromoethane	PPBv	ND	0.04		04/03/09	XC
1,2-Dichlorobenzene	PPBv	ND	0.04		04/03/09	XC
1,3-Dichlorobenzene	PPBv	ND	0.04		04/03/09	XC
1,4-Dichlorobenzene	PPBv	0.08	0.04		04/03/09	XC
Dichlorodifluoromethane	PPBv	1.6	0.04		04/03/09	XC
1,1-Dichloroethane	PPBv	ND	0.04		04/03/09	XC
1,2-Dichloroethane	PPBv	ND	0.04		04/03/09	XC
1,1-Dichloroethylene	PPBv	ND	0.04		04/03/09	XC
cis-1,2-Dichloroethylene	PPBv	ND	0.04		04/03/09	XC
t-1,2-Dichloroethylene	PPBv	ND	0.04		04/03/09	XC
1,2-Dichloropropane	PPBv	ND	0.04		04/03/09	XC
cis-1,3-Dichloropropene	PPBv	ND	0.04		04/03/09	XC
trans-1,3-Dichloropropene	PPBv	ND	0.04		04/03/09	XC
1,2-Dichlorotetrafluoroethane (114)	PPBv	ND	0.04		04/03/09	XC
Ethanol	PPBv	40	0.04		04/03/09	XC
Ethyl Acetate	PPBv	0.19	0.04		04/03/09	XC

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39 Spruce Street ° East Longmeadow, MA 01028 ° FAX 413/525-6405 ° TEL. 413/525-2332

STEVE KORNDER
AECOM ENVIRONMENT - VERNON HILLS, IL
750 CORPORATE WOODS PARKWAY
VERNON HILLS, IL 60061

4/8/2009

Purchase Order No.:

Project Number: 13069-002-2500
LIMS-BAT #: LIMT-24454
Job Number: 13069-002/2500

Project Location: GREENBROOK SCHOOL
Date Received: 4/3/2009

Field Sample # : IA1-DUP

Sample ID : *09B10369

‡Sampled : 4/1/2009
8-HR Air

Sample Matrix: AIR
Sample Medium : SUMMA

	Units	Results	RL	Method	Date Analyzed	Analyst
to-15 ppbv				EPA TO-15		
Ethylbenzene	PPBv	0.12	0.04		04/03/09	XC
4-Ethyl Toluene	PPBv	0.04	0.04		04/03/09	XC
n-Heptane	PPBv	0.18	0.04		04/03/09	XC
Hexachlorobutadiene	PPBv	ND	0.07		04/03/09	XC
Hexane	PPBv	0.43	0.04		04/03/09	XC
2-Hexanone	PPBv	0.13	0.04		04/03/09	XC
Isopropanol	PPBv	6.4	0.04		04/03/09	XC
Methyl tert-Butyl Ether (MTBE)	PPBv	ND	0.04		04/03/09	XC
Methylene Chloride	PPBv	1.1	0.04		04/03/09	XC
4-Methyl-2-Pentanone (MIBK)	PPBv	0.45	0.04		04/03/09	XC
Propene	PPBv	ND	0.04		04/03/09	XC
Styrene	PPBv	0.06	0.04		04/03/09	XC
1,1,2,2-Tetrachloroethane	PPBv	ND	0.04		04/03/09	XC
Tetrachloroethylene	PPBv	ND	0.04		04/03/09	XC
Tetrahydrofuran	PPBv	ND	0.04		04/03/09	XC
Toluene	PPBv	0.49	0.04		04/03/09	XC
1,2,4-Trichlorobenzene	PPBv	ND	0.04		04/03/09	XC
1,1,1-Trichloroethane	PPBv	ND	0.04		04/03/09	XC
1,1,2-Trichloroethane	PPBv	ND	0.04		04/03/09	XC
Trichloroethylene	PPBv	ND	0.04		04/03/09	XC
Trichlorofluoromethane (Freon 11)	PPBv	0.24	0.04		04/03/09	XC
1,1,2-Trichloro-1,2,2-Trifluoroethane	PPBv	0.07	0.04		04/03/09	XC
1,2,4-Trimethylbenzene	PPBv	0.15	0.04		04/03/09	XC
1,3,5-Trimethylbenzene	PPBv	0.05	0.04		04/03/09	XC
Vinyl Acetate	PPBv	ND	0.04		04/03/09	XC
Vinyl Chloride	PPBv	ND	0.04		04/03/09	XC
m/p-Xylene	PPBv	0.35	0.07		04/03/09	XC
o-Xylene	PPBv	0.11	0.04		04/03/09	XC
to-15 ug/m				EPA TO-15		
Acetone	ug/m3	24	0.09		04/03/09	XC
Benzene	ug/m3	0.74	0.12		04/03/09	XC
Benzyl Chloride	ug/m3	ND	0.19		04/03/09	XC
Bromodichloromethane	ug/m3	ND	0.24		04/03/09	XC
Bromoform	ug/m3	ND	0.36		04/03/09	XC
Bromomethane	ug/m3	ND	0.14		04/03/09	XC

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ANALYTICAL LABORATORY
39 Spruce Street ° East Longmeadow, MA 01028 ° FAX 413/525-6405 ° TEL. 413/525-2332

STEVE KORNDER
AECOM ENVIRONMENT - VERNON HILLS, IL
750 CORPORATE WOODS PARKWAY
VERNON HILLS, IL 60061

4/8/2009

Purchase Order No.:

Project Number: 13069-002-2500
LIMS-BAT #: LIMT-24454
Job Number: 13069-002/2500

Project Location: GREENBROOK SCHOOL
Date Received: 4/3/2009

Field Sample # : IA1-DUP

Sample ID : *09B10369

‡Sampled : 4/1/2009
8-HR Air

Sample Matrix: AIR
Sample Medium : SUMMA

	Units	Results	RL	Method	Date Analyzed	Analyst
to-15 ug/m				EPA TO-15		
1,3-Butadiene	ug/m3	ND	0.08		04/03/09	XC
2-Butanone (MEK)	ug/m3	2.8	0.11		04/03/09	XC
Carbon Disulfide	ug/m3	ND	0.12		04/03/09	XC
Carbon Tetrachloride	ug/m3	0.52	0.22		04/03/09	XC
Chlorobenzene	ug/m3	ND	0.17		04/03/09	XC
Chlorodibromomethane	ug/m3	ND	0.31		04/03/09	XC
Chloroethane	ug/m3	ND	0.10		04/03/09	XC
Chloroform	ug/m3	ND	0.17		04/03/09	XC
Chloromethane	ug/m3	1.5	0.07		04/03/09	XC
Cyclohexane	ug/m3	0.30	0.12		04/03/09	XC
1,2-Dibromoethane	ug/m3	ND	0.27		04/03/09	XC
1,2-Dichlorobenzene	ug/m3	ND	0.21		04/03/09	XC
1,3-Dichlorobenzene	ug/m3	ND	0.21		04/03/09	XC
1,4-Dichlorobenzene	ug/m3	0.49	0.21		04/03/09	XC
Dichlorodifluoromethane	ug/m3	7.9	0.18		04/03/09	XC
1,1-Dichloroethane	ug/m3	ND	0.14		04/03/09	XC
1,2-Dichloroethane	ug/m3	ND	0.14		04/03/09	XC
1,1-Dichloroethylene	ug/m3	ND	0.14		04/03/09	XC
cis-1,2-Dichloroethylene	ug/m3	ND	0.14		04/03/09	XC
t-1,2-Dichloroethylene	ug/m3	ND	0.14		04/03/09	XC
1,2-Dichloropropane	ug/m3	ND	0.17		04/03/09	XC
cis-1,3-Dichloropropene	ug/m3	ND	0.16		04/03/09	XC
trans-1,3-Dichloropropene	ug/m3	ND	0.16		04/03/09	XC
1,2-Dichlorotetrafluoroethane (114)	ug/m3	ND	0.25		04/03/09	XC
Ethanol	ug/m3	76	0.07		04/03/09	XC
Ethyl Acetate	ug/m3	0.68	0.13		04/03/09	XC
Ethylbenzene	ug/m3	0.51	0.16		04/03/09	XC
4-Ethyl Toluene	ug/m3	0.20	0.18		04/03/09	XC
n-Heptane	ug/m3	0.74	0.14		04/03/09	XC
Hexachlorobutadiene	ug/m3	ND	0.75		04/03/09	XC
Hexane	ug/m3	1.5	0.13		04/03/09	XC
2-Hexanone	ug/m3	0.54	0.14		04/03/09	XC
Isopropanol	ug/m3	16	0.09		04/03/09	XC
Methyl tert-Butyl Ether (MTBE)	ug/m3	ND	0.13		04/03/09	XC
Methylene Chloride	ug/m3	3.9	0.12		04/03/09	XC

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750 CORPORATE WOODS PARKWAY
VERNON HILLS, IL 60061

4/8/2009

Purchase Order No.:

Project Number: 13069-002-2500
LIMS-BAT #: LIMT-24454
Job Number: 13069-002/2500

Project Location: GREENBROOK SCHOOL
Date Received: 4/3/2009

Field Sample # : IA1-DUP

Sample ID : *09B10369

‡Sampled : 4/1/2009
8-HR Air

Sample Matrix: AIR
Sample Medium : SUMMA

	Units	Results	RL	Method	Date Analyzed	Analyst
to-15 ug/m				EPA TO-15		
4-Methyl-2-Pentanone (MIBK)	ug/m3	1.8	0.14		04/03/09	XC
Propene	ug/m3	ND	0.07		04/03/09	XC
Styrene	ug/m3	0.24	0.15		04/03/09	XC
1,1,2,2-Tetrachloroethane	ug/m3	ND	0.24		04/03/09	XC
Tetrachloroethylene	ug/m3	ND	0.24		04/03/09	XC
Tetrahydrofuran	ug/m3	ND	0.11		04/03/09	XC
Toluene	ug/m3	1.9	0.14		04/03/09	XC
1,2,4-Trichlorobenzene	ug/m3	ND	0.26		04/03/09	XC
1,1,1-Trichloroethane	ug/m3	ND	0.19		04/03/09	XC
1,1,2-Trichloroethane	ug/m3	ND	0.19		04/03/09	XC
Trichloroethylene	ug/m3	ND	0.19		04/03/09	XC
Trichlorofluoromethane	ug/m3	1.4	0.20		04/03/09	XC
1,1,2-Trichloro-1,2,2-Trifluoroethane	ug/m3	0.52	0.27		04/03/09	XC
1,2,4-Trimethylbenzene	ug/m3	0.76	0.18		04/03/09	XC
1,3,5-Trimethylbenzene	ug/m3	0.23	0.18		04/03/09	XC
Vinyl Acetate	ug/m3	ND	0.13		04/03/09	XC
Vinyl Chloride	ug/m3	ND	0.10		04/03/09	XC
m/p-Xylene	ug/m3	1.5	0.31		04/03/09	XC
o-Xylene	ug/m3	0.46	0.16		04/03/09	XC

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‡ See attached chain-of-custody record for time sampled

con-test®
ANALYTICAL LABORATORY
39 Spruce Street ° East Longmeadow, MA 01028 ° FAX 413/525-6405 ° TEL. 413/525-2332

STEVE KORNDER
AECOM ENVIRONMENT - VERNON HILLS, IL
750 CORPORATE WOODS PARKWAY
VERNON HILLS, IL 60061

Purchase Order No.:

Project Number: 13069-002-2500
LIMS-BAT #: LIMT-24454
Job Number: 13069-002/2500

Project Location: GREENBROOK SCHOOL
Date Received: 4/3/2009

Field Sample # : IA2

Sample ID : *09B10370 ‡Sampled : 4/1/2009
8-HR Air
Sample Matrix: AIR Sample Medium : SUMMA

	Units	Results	RL	Method	Date Analyzed	Analyst
air specia						
SPECIAL TEST					04/06/09	XC
SEE REPORT PAGE FOR MORE INFORMATION.						
to-15 ppbv				EPA TO-15		
Acetone	PPBv	8.4	0.04		04/03/09	XC
Benzene	PPBv	0.25	0.04		04/03/09	XC
Benzyl Chloride	PPBv	ND	0.04		04/03/09	XC
Bromodichloromethane	PPBv	ND	0.04		04/03/09	XC
Bromoform	PPBv	ND	0.04		04/03/09	XC
Bromomethane	PPBv	ND	0.04		04/03/09	XC
1,3-Butadiene	PPBv	ND	0.04		04/03/09	XC
2-Butanone (MEK)	PPBv	0.56	0.04		04/03/09	XC
Carbon Disulfide	PPBv	ND	0.04		04/03/09	XC
Carbon Tetrachloride	PPBv	0.08	0.04		04/03/09	XC
Chlorobenzene	PPBv	ND	0.04		04/03/09	XC
Chlorodibromomethane	PPBv	ND	0.04		04/03/09	XC
Chloroethane	PPBv	ND	0.04		04/03/09	XC
Chloroform	PPBv	0.05	0.04		04/03/09	XC
Chloromethane	PPBv	*0.55*	*0.04*		*04/03/09*	XC
Cyclohexane	PPBv	0.12	0.04		04/03/09	XC
1,2-Dibromoethane	PPBv	ND	0.04		04/03/09	XC
1,2-Dichlorobenzene	PPBv	ND	0.04		04/03/09	XC
1,3-Dichlorobenzene	PPBv	ND	0.04		04/03/09	XC
1,4-Dichlorobenzene	PPBv	ND	0.04		04/03/09	XC
Dichlorodifluoromethane	PPBv	1.2	0.04		04/03/09	XC
1,1-Dichloroethane	PPBv	ND	0.04		04/03/09	XC
1,2-Dichloroethane	PPBv	0.04	0.04		04/03/09	XC
1,1-Dichloroethylene	PPBv	ND	0.04		04/03/09	XC
cis-1,2-Dichloroethylene	PPBv	ND	0.04		04/03/09	XC
t-1,2-Dichloroethylene	PPBv	ND	0.04		04/03/09	XC
1,2-Dichloropropane	PPBv	ND	0.04		04/03/09	XC
cis-1,3-Dichloropropene	PPBv	ND	0.04		04/03/09	XC
trans-1,3-Dichloropropene	PPBv	ND	0.04		04/03/09	XC
1,2-Dichlorotetrafluoroethane (114)	PPBv	*ND*	0.04		04/03/09	XC
Ethanol	PPBv	30	0.04		04/03/09	XC
Ethyl Acetate	PPBv	0.19	0.04		04/03/09	XC

RL = Reporting Limit

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ANALYTICAL LABORATORY
39 Spruce Street ° East Longmeadow, MA 01028 ° FAX 413/525-6405 ° TEL. 413/525-2332

STEVE KORNDER
AECOM ENVIRONMENT - VERNON HILLS, IL
750 CORPORATE WOODS PARKWAY
VERNON HILLS, IL 60061

Purchase Order No.:

Project Number: 13069-002-2500
LIMS-BAT #: LIMT-24454
Job Number: 13069-002/2500

Project Location: GREENBROOK SCHOOL
Date Received: 4/3/2009

Field Sample # : IA2

Sample ID : *09B10370

‡Sampled : 4/1/2009
8-HR Air

Sample Matrix: AIR
Sample Medium : SUMMA

	Units	Results	RL	Method	Date Analyzed	Analyst
to-15 ppbv				EPA TO-15		
Ethylbenzene	PPBv	0.11	0.04		04/03/09	XC
4-Ethyl Toluene	PPBv	ND	0.04		04/03/09	XC
n-Heptane	PPBv	0.25	0.04		04/03/09	XC
Hexachlorobutadiene	PPBv	ND	0.07		04/03/09	XC
Hexane	PPBv	0.36	0.04		04/03/09	XC
2-Hexanone	PPBv	0.08	0.04		04/03/09	XC
Isopropanol	PPBv	5.9	0.04		04/03/09	XC
Methyl tert-Butyl Ether (MTBE)	PPBv	ND	0.04		04/03/09	XC
Methylene Chloride	PPBv	0.82	0.04		04/03/09	XC
4-Methyl-2-Pentanone (MIBK)	PPBv	0.41	0.04		04/03/09	XC
Propene	PPBv	ND	0.04		04/03/09	XC
Styrene	PPBv	0.05	0.04		04/03/09	XC
1,1,2,2-Tetrachloroethane	PPBv	ND	0.04		04/03/09	XC
Tetrachloroethylene	PPBv	ND	0.04		04/03/09	XC
Tetrahydrofuran	PPBv	ND	0.04		04/03/09	XC
Toluene	PPBv	0.60	0.04		04/03/09	XC
1,2,4-Trichlorobenzene	PPBv	ND	0.04		04/03/09	XC
1,1,1-Trichloroethane	PPBv	ND	0.04		04/03/09	XC
1,1,2-Trichloroethane	PPBv	ND	0.04		04/03/09	XC
Trichloroethylene	PPBv	ND	0.04		04/03/09	XC
Trichlorofluoromethane (Freon 11)	PPBv	0.25	0.04		04/03/09	XC
1,1,2-Trichloro-1,2,2-Trifluoroethane	PPBv	0.07	0.04		04/03/09	XC
1,2,4-Trimethylbenzene	PPBv	0.12	0.04		04/03/09	XC
1,3,5-Trimethylbenzene	PPBv	0.04	0.04		04/03/09	XC
Vinyl Acetate	PPBv	ND	0.04		04/03/09	XC
Vinyl Chloride	PPBv	ND	0.04		04/03/09	XC
m/p-Xylene	PPBv	0.34	0.07		04/03/09	XC
o-Xylene	PPBv	0.10	0.04		04/03/09	XC
to-15 ug/m				EPA TO-15		
Acetone	ug/m3	20	0.09		04/03/09	XC
Benzene	ug/m3	0.81	0.12		04/03/09	XC
Benzyl Chloride	ug/m3	ND	0.19		04/03/09	XC
Bromodichloromethane	ug/m3	ND	0.24		04/03/09	XC
Bromoform	ug/m3	ND	0.36		04/03/09	XC
Bromomethane	ug/m3	ND	0.14		04/03/09	XC

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ANALYTICAL LABORATORY
39 Spruce Street ° East Longmeadow, MA 01028 ° FAX 413/525-6405 ° TEL. 413/525-2332

STEVE KORNDER
AECOM ENVIRONMENT - VERNON HILLS, IL
750 CORPORATE WOODS PARKWAY
VERNON HILLS, IL 60061

Purchase Order No.:

Project Number: 13069-002-2500
LIMS-BAT #: LIMT-24454
Job Number: 13069-002/2500

Project Location: GREENBROOK SCHOOL
Date Received: 4/3/2009

Field Sample # : IA2

Sample ID : *09B10370

‡Sampled : 4/1/2009
8-HR Air

Sample Matrix: AIR
Sample Medium : SUMMA

	Units	Results	RL	Method	Date Analyzed	Analyst
to-15 ug/m				EPA TO-15		
1,3-Butadiene	ug/m3	ND	0.08		04/03/09	XC
2-Butanone (MEK)	ug/m3	1.7	0.11		04/03/09	XC
Carbon Disulfide	ug/m3	ND	0.12		04/03/09	XC
Carbon Tetrachloride	ug/m3	0.51	0.22		04/03/09	XC
Chlorobenzene	ug/m3	ND	0.17		04/03/09	XC
Chlorodibromomethane	ug/m3	ND	0.31		04/03/09	XC
Chloroethane	ug/m3	ND	0.10		04/03/09	XC
Chloroform	ug/m3	0.24	0.17		04/03/09	XC
Chloromethane	ug/m3	1.1	0.07		04/03/09	XC
Cyclohexane	ug/m3	0.42	0.12		04/03/09	XC
1,2-Dibromoethane	ug/m3	ND	0.27		04/03/09	XC
1,2-Dichlorobenzene	ug/m3	ND	0.21		04/03/09	XC
1,3-Dichlorobenzene	ug/m3	ND	0.21		04/03/09	XC
1,4-Dichlorobenzene	ug/m3	ND	0.21		04/03/09	XC
Dichlorodifluoromethane	ug/m3	5.8	0.18		04/03/09	XC
1,1-Dichloroethane	ug/m3	ND	0.14		04/03/09	XC
1,2-Dichloroethane	ug/m3	0.17	0.14		04/03/09	XC
1,1-Dichloroethylene	ug/m3	ND	0.14		04/03/09	XC
cis-1,2-Dichloroethylene	ug/m3	ND	0.14		04/03/09	XC
t-1,2-Dichloroethylene	ug/m3	ND	0.14		04/03/09	XC
1,2-Dichloropropane	ug/m3	ND	0.17		04/03/09	XC
cis-1,3-Dichloropropene	ug/m3	ND	0.16		04/03/09	XC
trans-1,3-Dichloropropene	ug/m3	ND	0.16		04/03/09	XC
1,2-Dichlorotetrafluoroethane (114)	ug/m3	ND	0.25		04/03/09	XC
Ethanol	ug/m3	56	0.07		04/03/09	XC
Ethyl Acetate	ug/m3	0.70	0.13		04/03/09	XC
Ethylbenzene	ug/m3	0.49	0.16		04/03/09	XC
4-Ethyl Toluene	ug/m3	ND	0.18		04/03/09	XC
n-Heptane	ug/m3	1.0	0.14		04/03/09	XC
Hexachlorobutadiene	ug/m3	ND	0.75		04/03/09	XC
Hexane	ug/m3	1.3	0.13		04/03/09	XC
2-Hexanone	ug/m3	0.31	0.14		04/03/09	XC
Isopropanol	ug/m3	15	0.09		04/03/09	XC
Methyl tert-Butyl Ether (MTBE)	ug/m3	ND	0.13		04/03/09	XC
Methylene Chloride	ug/m3	2.8	0.12		04/03/09	XC

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39 Spruce Street ° East Longmeadow, MA 01028 ° FAX 413/525-6405 ° TEL. 413/525-2332

STEVE KORNDER
AECOM ENVIRONMENT - VERNON HILLS, IL
750 CORPORATE WOODS PARKWAY
VERNON HILLS, IL 60061

Purchase Order No.:

Project Number: 13069-002-2500
LIMS-BAT #: LIMT-24454
Job Number: 13069-002/2500

Project Location: GREENBROOK SCHOOL
Date Received: 4/3/2009

Field Sample # : IA2

Sample ID : *09B10370

‡Sampled : 4/1/2009
8-HR Air

Sample Matrix: AIR
Sample Medium : SUMMA

	Units	Results	RL	Method	Date Analyzed	Analyst
to-15 ug/m				EPA TO-15		
4-Methyl-2-Pentanone (MIBK)	ug/m3	1.7	0.14		04/03/09	XC
Propene	ug/m3	ND	0.07		04/03/09	XC
Styrene	ug/m3	0.23	0.15		04/03/09	XC
1,1,2,2-Tetrachloroethane	ug/m3	ND	0.24		04/03/09	XC
Tetrachloroethylene	ug/m3	ND	0.24		04/03/09	XC
Tetrahydrofuran	ug/m3	ND	0.11		04/03/09	XC
Toluene	ug/m3	2.2	0.14		04/03/09	XC
1,2,4-Trichlorobenzene	ug/m3	ND	0.26		04/03/09	XC
1,1,1-Trichloroethane	ug/m3	ND	0.19		04/03/09	XC
1,1,2-Trichloroethane	ug/m3	ND	0.19		04/03/09	XC
Trichloroethylene	ug/m3	ND	0.19		04/03/09	XC
Trichlorofluoromethane	ug/m3	1.4	0.20		04/03/09	XC
1,1,2-Trichloro-1,2,2-Trifluoroethane	ug/m3	0.55	0.27		04/03/09	XC
1,2,4-Trimethylbenzene	ug/m3	0.60	0.18		04/03/09	XC
1,3,5-Trimethylbenzene	ug/m3	0.18	0.18		04/03/09	XC
Vinyl Acetate	ug/m3	ND	0.13		04/03/09	XC
Vinyl Chloride	ug/m3	ND	0.10		04/03/09	XC
m/p-Xylene	ug/m3	1.5	0.31		04/03/09	XC
o-Xylene	ug/m3	0.44	0.16		04/03/09	XC

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ANALYTICAL LABORATORY

39 Spruce Street ° East Longmeadow, MA 01028 ° FAX 413/525-6405 ° TEL. 413/525-2332

STEVE KORNDER
AECOM ENVIRONMENT - VERNON HILLS, IL
750 CORPORATE WOODS PARKWAY
VERNON HILLS, IL 60061

4/8/2009

Purchase Order No.:

Project Number: 13069-002-2500
LIMS-BAT #: LIMT-24454
Job Number: 13069-002/2500

Project Location: GREENBROOK SCHOOL
Date Received: 4/3/2009

Field Sample # : OA-1

Sample ID : 09B10367

‡Sampled : 4/1/2009
8-HR Air

Sample Matrix: AIR

Sample Medium : SUMMA

	Units	Results	RL	Method	Date Analyzed	Analyst
air specia						
SPECIAL TEST					04/06/09	XC
SEE REPORT PAGE FOR MORE INFORMATION.						
to-15 ppbv				EPA TO-15		
Acetone	PPBv	2.7	0.04		04/03/09	XC
Benzene	PPBv	0.10	0.04		04/03/09	XC
Benzyl Chloride	PPBv	ND	0.04		04/03/09	XC
Bromodichloromethane	PPBv	ND	0.04		04/03/09	XC
Bromoform	PPBv	ND	0.04		04/03/09	XC
Bromomethane	PPBv	ND	0.04		04/03/09	XC
1,3-Butadiene	PPBv	ND	0.04		04/03/09	XC
2-Butanone (MEK)	PPBv	0.19	0.04		04/03/09	XC
Carbon Disulfide	PPBv	ND	0.04		04/03/09	XC
Carbon Tetrachloride	PPBv	0.08	0.04		04/03/09	XC
Chlorobenzene	PPBv	ND	0.04		04/03/09	XC
Chlorodibromomethane	PPBv	ND	0.04		04/03/09	XC
Chloroethane	PPBv	ND	0.04		04/03/09	XC
Chloroform	PPBv	ND	0.04		04/03/09	XC
Chloromethane	PPBv	0.53	0.04		04/03/09	XC
Cyclohexane	PPBv	ND	0.04		04/03/09	XC
1,2-Dibromoethane	PPBv	ND	0.04		04/03/09	XC
1,2-Dichlorobenzene	PPBv	ND	0.04		04/03/09	XC
1,3-Dichlorobenzene	PPBv	ND	0.04		04/03/09	XC
1,4-Dichlorobenzene	PPBv	ND	0.04		04/03/09	XC
Dichlorodifluoromethane	PPBv	0.47	0.04		04/03/09	XC
1,1-Dichloroethane	PPBv	ND	0.04		04/03/09	XC
1,2-Dichloroethane	PPBv	ND	0.04		04/03/09	XC
1,1-Dichloroethylene	PPBv	ND	0.04		04/03/09	XC
cis-1,2-Dichloroethylene	PPBv	ND	0.04		04/03/09	XC
t-1,2-Dichloroethylene	PPBv	ND	0.04		04/03/09	XC
1,2-Dichloropropane	PPBv	ND	0.04		04/03/09	XC
cis-1,3-Dichloropropene	PPBv	ND	0.04		04/03/09	XC
trans-1,3-Dichloropropene	PPBv	ND	0.04		04/03/09	XC
1,2-Dichlorotetrafluoroethane (114)	PPBv	ND	0.04		04/03/09	XC
Ethanol	PPBv	0.89	0.04		04/03/09	XC
Ethyl Acetate	PPBv	0.05	0.04		04/03/09	XC

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39 Spruce Street ° East Longmeadow, MA 01028 ° FAX 413/525-6405 ° TEL. 413/525-2332

STEVE KORNDER
AECOM ENVIRONMENT - VERNON HILLS, IL
750 CORPORATE WOODS PARKWAY
VERNON HILLS, IL 60061

Purchase Order No.:

Project Number: 13069-002-2500
LIMS-BAT #: LIMT-24454
Job Number: 13069-002/2500

Project Location: GREENBROOK SCHOOL
Date Received: 4/3/2009

Field Sample # : OA-1

Sample ID : 09B10367

‡Sampled : 4/1/2009
8-HR Air
Sample Medium : SUMMA

Sample Matrix: AIR

	Units	Results	RL	Method	Date Analyzed	Analyst
to-15 ppbv				EPA TO-15		
Ethylbenzene	PPBv	ND	0.04		04/03/09	XC
4-Ethyl Toluene	PPBv	ND	0.04		04/03/09	XC
n-Heptane	PPBv	ND	0.04		04/03/09	XC
Hexachlorobutadiene	PPBv	ND	0.07		04/03/09	XC
Hexane	PPBv	0.09	0.04		04/03/09	XC
2-Hexanone	PPBv	ND	0.04		04/03/09	XC
Isopropanol	PPBv	0.17	0.04		04/03/09	XC
Methyl tert-Butyl Ether (MTBE)	PPBv	ND	0.04		04/03/09	XC
Methylene Chloride	PPBv	0.62	0.04		04/03/09	XC
4-Methyl-2-Pentanone (MIBK)	PPBv	ND	0.04		04/03/09	XC
Propene	PPBv	ND	0.04		04/03/09	XC
Styrene	PPBv	ND	0.04		04/03/09	XC
1,1,2,2-Tetrachloroethane	PPBv	ND	0.04		04/03/09	XC
Tetrachloroethylene	PPBv	ND	0.04		04/03/09	XC
Tetrahydrofuran	PPBv	ND	0.04		04/03/09	XC
Toluene	PPBv	0.13	0.04		04/03/09	XC
1,2,4-Trichlorobenzene	PPBv	ND	0.04		04/03/09	XC
1,1,1-Trichloroethane	PPBv	ND	0.04		04/03/09	XC
1,1,2-Trichloroethane	PPBv	ND	0.04		04/03/09	XC
Trichloroethylene	PPBv	ND	0.04		04/03/09	XC
Trichlorofluoromethane (Freon 11)	PPBv	0.20	0.04		04/03/09	XC
1,1,2-Trichloro-1,2,2-Trifluoroethane	PPBv	0.07	0.04		04/03/09	XC
1,2,4-Trimethylbenzene	PPBv	ND	0.04		04/03/09	XC
1,3,5-Trimethylbenzene	PPBv	ND	0.04		04/03/09	XC
Vinyl Acetate	PPBv	ND	0.04		04/03/09	XC
Vinyl Chloride	PPBv	ND	0.04		04/03/09	XC
m/p-Xylene	PPBv	ND	0.07		04/03/09	XC
o-Xylene	PPBv	ND	0.04		04/03/09	XC
to-15 ug/m				EPA TO-15		
Acetone	ug/m3	6.4	0.09		04/03/09	XC
Benzene	ug/m3	0.32	0.12		04/03/09	XC
Benzyl Chloride	ug/m3	ND	0.19		04/03/09	XC
Bromodichloromethane	ug/m3	ND	0.24		04/03/09	XC
Bromoform	ug/m3	ND	0.36		04/03/09	XC
Bromomethane	ug/m3	ND	0.14		04/03/09	XC

RL = Reporting Limit

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NM = Not Measured

* = See end of report for comments and notes applying to this sample

‡ See attached chain-of-custody record for time sampled

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ANALYTICAL LABORATORY
39 Spruce Street ° East Longmeadow, MA 01028 ° FAX 413/525-6405 ° TEL. 413/525-2332

STEVE KORNDER
AECOM ENVIRONMENT - VERNON HILLS, IL
750 CORPORATE WOODS PARKWAY
VERNON HILLS, IL 60061

Purchase Order No.:

4/8/2009

Project Number: 13069-002-2500
LIMS-BAT #: LIMT-24454
Job Number: 13069-002/2500

Project Location: GREENBROOK SCHOOL
Date Received: 4/3/2009

Field Sample # : OA-1

Sample ID : 09B10367
‡Sampled : 4/1/2009
8-HR Air
Sample Matrix: AIR
Sample Medium : SUMMA

	Units	Results	RL	Method	Date Analyzed	Analyst
to-15 ug/m				EPA TO-15		
1,3-Butadiene	ug/m3	ND	0.08		04/03/09	XC
2-Butanone (MEK)	ug/m3	0.56	0.11		04/03/09	XC
Carbon Disulfide	ug/m3	ND	0.12		04/03/09	XC
Carbon Tetrachloride	ug/m3	0.52	0.22		04/03/09	XC
Chlorobenzene	ug/m3	ND	0.17		04/03/09	XC
Chlorodibromomethane	ug/m3	ND	0.31		04/03/09	XC
Chloroethane	ug/m3	ND	0.10		04/03/09	XC
Chloroform	ug/m3	ND	0.17		04/03/09	XC
Chloromethane	ug/m3	1.1	0.07		04/03/09	XC
Cyclohexane	ug/m3	ND	0.12		04/03/09	XC
1,2-Dibromoethane	ug/m3	ND	0.27		04/03/09	XC
1,2-Dichlorobenzene	ug/m3	ND	0.21		04/03/09	XC
1,3-Dichlorobenzene	ug/m3	ND	0.21		04/03/09	XC
1,4-Dichlorobenzene	ug/m3	ND	0.21		04/03/09	XC
Dichlorodifluoromethane	ug/m3	2.3	0.18		04/03/09	XC
1,1-Dichloroethane	ug/m3	ND	0.14		04/03/09	XC
1,2-Dichloroethane	ug/m3	ND	0.14		04/03/09	XC
1,1-Dichloroethylene	ug/m3	ND	0.14		04/03/09	XC
cis-1,2-Dichloroethylene	ug/m3	ND	0.14		04/03/09	XC
t-1,2-Dichloroethylene	ug/m3	ND	0.14		04/03/09	XC
1,2-Dichloropropane	ug/m3	ND	0.17		04/03/09	XC
cis-1,3-Dichloropropene	ug/m3	ND	0.16		04/03/09	XC
trans-1,3-Dichloropropene	ug/m3	ND	0.16		04/03/09	XC
1,2-Dichlorotetrafluoroethane (114)	ug/m3	ND	0.25		04/03/09	XC
Ethanol	ug/m3	1.7	0.07		04/03/09	XC
Ethyl Acetate	ug/m3	0.16	0.13		04/03/09	XC
Ethylbenzene	ug/m3	ND	0.16		04/03/09	XC
4-Ethyl Toluene	ug/m3	ND	0.18		04/03/09	XC
n-Heptane	ug/m3	ND	0.14		04/03/09	XC
Hexachlorobutadiene	ug/m3	ND	0.75		04/03/09	XC
Hexane	ug/m3	0.33	0.13		04/03/09	XC
2-Hexanone	ug/m3	ND	0.14		04/03/09	XC
Isopropanol	ug/m3	0.42	0.09		04/03/09	XC
Methyl tert-Butyl Ether (MTBE)	ug/m3	ND	0.13		04/03/09	XC
Methylene Chloride	ug/m3	2.2	0.12		04/03/09	XC

RL = Reporting Limit

ND = Not Detected at or above the Reporting Limit

NM = Not Measured

* = See end of report for comments and notes applying to this sample

‡ See attached chain-of-custody record for time sampled

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ANALYTICAL LABORATORY
39 Spruce Street ° East Longmeadow, MA 01028 ° FAX 413/525-6405 ° TEL. 413/525-2332

STEVE KORNDER
AECOM ENVIRONMENT - VERNON HILLS, IL
750 CORPORATE WOODS PARKWAY
VERNON HILLS, IL 60061

4/8/2009

Purchase Order No.:

Project Number: 13069-002-2500
LIMS-BAT #: LIMT-24454
Job Number: 13069-002/2500

Project Location: GREENBROOK SCHOOL
Date Received: 4/3/2009

Field Sample # : OA-1

Sample ID : 09B10367

‡Sampled : 4/1/2009
8-HR Air

Sample Matrix: AIR
Sample Medium : SUMMA

	Units	Results	RL	Method	Date Analyzed	Analyst
to-15 ug/m				EPA TO-15		
4-Methyl-2-Pentanone (MIBK)	ug/m3	ND	0.14		04/03/09	XC
Propene	ug/m3	ND	0.07		04/03/09	XC
Styrene	ug/m3	ND	0.15		04/03/09	XC
1,1,2,2-Tetrachloroethane	ug/m3	ND	0.24		04/03/09	XC
Tetrachloroethylene	ug/m3	ND	0.24		04/03/09	XC
Tetrahydrofuran	ug/m3	ND	0.11		04/03/09	XC
Toluene	ug/m3	0.48	0.14		04/03/09	XC
1,2,4-Trichlorobenzene	ug/m3	ND	0.26		04/03/09	XC
1,1,1-Trichloroethane	ug/m3	ND	0.19		04/03/09	XC
1,1,2-Trichloroethane	ug/m3	ND	0.19		04/03/09	XC
Trichloroethylene	ug/m3	ND	0.19		04/03/09	XC
Trichlorofluoromethane	ug/m3	1.1	0.20		04/03/09	XC
1,1,2-Trichloro-1,2,2-Trifluoroethane	ug/m3	0.53	0.27		04/03/09	XC
1,2,4-Trimethylbenzene	ug/m3	ND	0.18		04/03/09	XC
1,3,5-Trimethylbenzene	ug/m3	ND	0.18		04/03/09	XC
Vinyl Acetate	ug/m3	ND	0.13		04/03/09	XC
Vinyl Chloride	ug/m3	ND	0.10		04/03/09	XC
m/p-Xylene	ug/m3	ND	0.31		04/03/09	XC
o-Xylene	ug/m3	ND	0.16		04/03/09	XC

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NM = Not Measured

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‡ See attached chain-of-custody record for time sampled

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ANALYTICAL LABORATORY
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STEVE KORNDER
AECOM ENVIRONMENT - VERNON HILLS, IL
750 CORPORATE WOODS PARKWAY
VERNON HILLS, IL 60061

4/8/2009

Purchase Order No.:

Project Number: 13069-002-2500
LIMS-BAT #: LIMT-24454
Job Number: 13069-002/2500

Project Location: GREENBROOK SCHOOL
Date Received: 4/3/2009

Field Sample # : OA2

Sample ID : 09B10375

‡Sampled : 4/1/2009
8-HR Sub Slab

Sample Matrix: AIR
Sample Medium : SUMMA

	Units	Results	RL	Method	Date Analyzed	Analyst
air specia						
SPECIAL TEST					04/06/09	XC
SEE REPORT PAGE FOR MORE INFORMATION.						
to-15 ppbv				EPA TO-15		
Acetone	PPBv	2.7	0.04		04/03/09	XC
Benzene	PPBv	0.10	0.04		04/03/09	XC
Benzyl Chloride	PPBv	ND	0.04		04/03/09	XC
Bromodichloromethane	PPBv	ND	0.04		04/03/09	XC
Bromoform	PPBv	ND	0.04		04/03/09	XC
Bromomethane	PPBv	ND	0.04		04/03/09	XC
1,3-Butadiene	PPBv	ND	0.04		04/03/09	XC
2-Butanone (MEK)	PPBv	0.50	0.04		04/03/09	XC
Carbon Disulfide	PPBv	ND	0.04		04/03/09	XC
Carbon Tetrachloride	PPBv	0.08	0.04		04/03/09	XC
Chlorobenzene	PPBv	ND	0.04		04/03/09	XC
Chlorodibromomethane	PPBv	ND	0.04		04/03/09	XC
Chloroethane	PPBv	ND	0.04		04/03/09	XC
Chloroform	PPBv	ND	0.04		04/03/09	XC
Chloromethane	PPBv	0.49	0.04		04/03/09	XC
Cyclohexane	PPBv	ND	0.04		04/03/09	XC
1,2-Dibromoethane	PPBv	ND	0.04		04/03/09	XC
1,2-Dichlorobenzene	PPBv	ND	0.04		04/03/09	XC
1,3-Dichlorobenzene	PPBv	ND	0.04		04/03/09	XC
1,4-Dichlorobenzene	PPBv	ND	0.04		04/03/09	XC
Dichlorodifluoromethane	PPBv	0.43	0.04		04/03/09	XC
1,1-Dichloroethane	PPBv	ND	0.04		04/03/09	XC
1,2-Dichloroethane	PPBv	ND	0.04		04/03/09	XC
1,1-Dichloroethylene	PPBv	ND	0.04		04/03/09	XC
cis-1,2-Dichloroethylene	PPBv	ND	0.04		04/03/09	XC
t-1,2-Dichloroethylene	PPBv	ND	0.04		04/03/09	XC
1,2-Dichloropropane	PPBv	ND	0.04		04/03/09	XC
cis-1,3-Dichloropropene	PPBv	ND	0.04		04/03/09	XC
trans-1,3-Dichloropropene	PPBv	ND	0.04		04/03/09	XC
1,2-Dichlorotetrafluoroethane (114)	PPBv	ND	0.04		04/03/09	XC
Ethanol	PPBv	1.1	0.04		04/03/09	XC
Ethyl Acetate	PPBv	ND	0.04		04/03/09	XC

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ANALYTICAL LABORATORY

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STEVE KORNDER
AECOM ENVIRONMENT - VERNON HILLS, IL
750 CORPORATE WOODS PARKWAY
VERNON HILLS, IL 60061

Purchase Order No.:

Project Number: 13069-002-2500
LIMS-BAT #: LIMT-24454
Job Number: 13069-002/2500

Project Location: GREENBROOK SCHOOL
Date Received: 4/3/2009

Field Sample # : OA2

Sample ID : 09B10375

‡Sampled : 4/1/2009
8-HR Sub Slab

Sample Matrix: AIR
Sample Medium : SUMMA

	Units	Results	RL	Method	Date Analyzed	Analyst
to-15 ppbv				EPA TO-15		
Ethylbenzene	PPBv	ND	0.04		04/03/09	XC
4-Ethyl Toluene	PPBv	ND	0.04		04/03/09	XC
n-Heptane	PPBv	ND	0.04		04/03/09	XC
Hexachlorobutadiene	PPBv	ND	0.07		04/03/09	XC
Hexane	PPBv	0.05	0.04		04/03/09	XC
2-Hexanone	PPBv	0.05	0.04		04/03/09	XC
Isopropanol	PPBv	0.19	0.04		04/03/09	XC
Methyl tert-Butyl Ether (MTBE)	PPBv	ND	0.04		04/03/09	XC
Methylene Chloride	PPBv	0.19	0.04		04/03/09	XC
4-Methyl-2-Pentanone (MIBK)	PPBv	ND	0.04		04/03/09	XC
Propene	PPBv	ND	0.04		04/03/09	XC
Styrene	PPBv	ND	0.04		04/03/09	XC
1,1,2,2-Tetrachloroethane	PPBv	ND	0.04		04/03/09	XC
Tetrachloroethylene	PPBv	ND	0.04		04/03/09	XC
Tetrahydrofuran	PPBv	ND	0.04		04/03/09	XC
Toluene	PPBv	0.06	0.04		04/03/09	XC
1,2,4-Trichlorobenzene	PPBv	ND	0.04		04/03/09	XC
1,1,1-Trichloroethane	PPBv	ND	0.04		04/03/09	XC
1,1,2-Trichloroethane	PPBv	ND	0.04		04/03/09	XC
Trichloroethylene	PPBv	ND	0.04		04/03/09	XC
Trichlorofluoromethane (Freon 11)	PPBv	0.17	0.04		04/03/09	XC
1,1,2-Trichloro-1,2,2-Trifluoroethane	PPBv	0.07	0.04		04/03/09	XC
1,2,4-Trimethylbenzene	PPBv	ND	0.04		04/03/09	XC
1,3,5-Trimethylbenzene	PPBv	ND	0.04		04/03/09	XC
Vinyl Acetate	PPBv	ND	0.04		04/03/09	XC
Vinyl Chloride	PPBv	ND	0.04		04/03/09	XC
m/p-Xylene	PPBv	ND	0.07		04/03/09	XC
o-Xylene	PPBv	ND	0.04		04/03/09	XC
to-15 ug/m				EPA TO-15		
Acetone	ug/m3	6.5	0.09		04/03/09	XC
Benzene	ug/m3	0.32	0.12		04/03/09	XC
Benzyl Chloride	ug/m3	ND	0.19		04/03/09	XC
Bromodichloromethane	ug/m3	ND	0.24		04/03/09	XC
Bromoform	ug/m3	ND	0.36		04/03/09	XC
Bromomethane	ug/m3	ND	0.14		04/03/09	XC

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‡ See attached chain-of-custody record for time sampled

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ANALYTICAL LABORATORY
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STEVE KORNDER
AECOM ENVIRONMENT - VERNON HILLS, IL
750 CORPORATE WOODS PARKWAY
VERNON HILLS, IL 60061

4/8/2009

Purchase Order No.:

Project Number: 13069-002-2500
LIMS-BAT #: LIMT-24454
Job Number: 13069-002/2500

Project Location: GREENBROOK SCHOOL
Date Received: 4/3/2009

Field Sample # : OA2

Sample ID : 09B10375

‡Sampled : 4/1/2009
8-HR Sub Slab

Sample Matrix: AIR
Sample Medium : SUMMA

	Units	Results	RL	Method	Date Analyzed	Analyst
to-15 ug/m				EPA TO-15		
1,3-Butadiene	ug/m3	ND	0.08		04/03/09	XC
2-Butanone (MEK)	ug/m3	1.5	0.11		04/03/09	XC
Carbon Disulfide	ug/m3	ND	0.12		04/03/09	XC
Carbon Tetrachloride	ug/m3	0.52	0.22		04/03/09	XC
Chlorobenzene	ug/m3	ND	0.17		04/03/09	XC
Chlorodibromomethane	ug/m3	ND	0.31		04/03/09	XC
Chloroethane	ug/m3	ND	0.10		04/03/09	XC
Chloroform	ug/m3	ND	0.17		04/03/09	XC
Chloromethane	ug/m3	1.0	0.07		04/03/09	XC
Cyclohexane	ug/m3	ND	0.12		04/03/09	XC
1,2-Dibromoethane	ug/m3	ND	0.27		04/03/09	XC
1,2-Dichlorobenzene	ug/m3	ND	0.21		04/03/09	XC
1,3-Dichlorobenzene	ug/m3	ND	0.21		04/03/09	XC
1,4-Dichlorobenzene	ug/m3	ND	0.21		04/03/09	XC
Dichlorodifluoromethane	ug/m3	2.1	0.18		04/03/09	XC
1,1-Dichloroethane	ug/m3	ND	0.14		04/03/09	XC
1,2-Dichloroethane	ug/m3	ND	0.14		04/03/09	XC
1,1-Dichloroethylene	ug/m3	ND	0.14		04/03/09	XC
cis-1,2-Dichloroethylene	ug/m3	ND	0.14		04/03/09	XC
t-1,2-Dichloroethylene	ug/m3	ND	0.14		04/03/09	XC
1,2-Dichloropropane	ug/m3	ND	0.17		04/03/09	XC
cis-1,3-Dichloropropene	ug/m3	ND	0.16		04/03/09	XC
trans-1,3-Dichloropropene	ug/m3	ND	0.16		04/03/09	XC
1,2-Dichlorotetrafluoroethane (114)	ug/m3	ND	0.25		04/03/09	XC
Ethanol	ug/m3	2.1	0.07		04/03/09	XC
Ethyl Acetate	ug/m3	ND	0.13		04/03/09	XC
Ethylbenzene	ug/m3	ND	0.16		04/03/09	XC
4-Ethyl Toluene	ug/m3	ND	0.18		04/03/09	XC
n-Heptane	ug/m3	ND	0.14		04/03/09	XC
Hexachlorobutadiene	ug/m3	ND	0.75		04/03/09	XC
Hexane	ug/m3	0.19	0.13		04/03/09	XC
2-Hexanone	ug/m3	0.20	0.14		04/03/09	XC
Isopropanol	ug/m3	0.47	0.09		04/03/09	XC
Methyl tert-Butyl Ether (MTBE)	ug/m3	ND	0.13		04/03/09	XC
Methylene Chloride	ug/m3	0.65	0.12		04/03/09	XC

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‡ See attached chain-of-custody record for time sampled

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ANALYTICAL LABORATORY

39 Spruce Street ° East Longmeadow, MA 01028 ° FAX 413/525-6405 ° TEL. 413/525-2332

STEVE KORNDER
AECOM ENVIRONMENT - VERNON HILLS, IL
750 CORPORATE WOODS PARKWAY
VERNON HILLS, IL 60061

4/8/2009

Purchase Order No.:

Project Number: 13069-002-2500
LIMS-BAT #: LIMT-24454
Job Number: 13069-002/2500

Project Location: GREENBROOK SCHOOL
Date Received: 4/3/2009

Field Sample # : OA2

Sample ID : 09B10375

‡Sampled : 4/1/2009
8-HR Sub Slab

Sample Matrix: AIR

Sample Medium : SUMMA

	Units	Results	RL	Method	Date Analyzed	Analyst
to-15 ug/m				EPA TO-15		
4-Methyl-2-Pentanone (MIBK)	ug/m3	ND	0.14		04/03/09	XC
Propene	ug/m3	ND	0.07		04/03/09	XC
Styrene	ug/m3	ND	0.15		04/03/09	XC
1,1,2,2-Tetrachloroethane	ug/m3	ND	0.24		04/03/09	XC
Tetrachloroethylene	ug/m3	ND	0.24		04/03/09	XC
Tetrahydrofuran	ug/m3	ND	0.11		04/03/09	XC
Toluene	ug/m3	0.23	0.14		04/03/09	XC
1,2,4-Trichlorobenzene	ug/m3	ND	0.26		04/03/09	XC
1,1,1-Trichloroethane	ug/m3	ND	0.19		04/03/09	XC
1,1,2-Trichloroethane	ug/m3	ND	0.19		04/03/09	XC
Trichloroethylene	ug/m3	ND	0.19		04/03/09	XC
Trichlorofluoromethane	ug/m3	0.96	0.20		04/03/09	XC
1,1,2-Trichloro-1,2,2-Trifluoroethane	ug/m3	0.53	0.27		04/03/09	XC
1,2,4-Trimethylbenzene	ug/m3	ND	0.18		04/03/09	XC
1,3,5-Trimethylbenzene	ug/m3	ND	0.18		04/03/09	XC
Vinyl Acetate	ug/m3	ND	0.13		04/03/09	XC
Vinyl Chloride	ug/m3	ND	0.10		04/03/09	XC
m/p-Xylene	ug/m3	ND	0.31		04/03/09	XC
o-Xylene	ug/m3	ND	0.16		04/03/09	XC

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STEVE KORNDER
AECOM ENVIRONMENT - VERNON HILLS, IL
750 CORPORATE WOODS PARKWAY
VERNON HILLS, IL 60061

Purchase Order No.:

4/8/2009

Project Number: 13069-002-2500
LIMS-BAT #: LIMT-24454
Job Number: 13069-002/2500

Project Location: GREENBROOK SCHOOL
Date Received: 4/3/2009

Field Sample # : SS1

Sample ID : 09B10371

‡Sampled : 4/1/2009
8-HR Sub Slab

Sample Matrix: AIR

Sample Medium : SUMMA

	Units	Results	RL	Method	Date Analyzed	Analyst
air specia						
SPECIAL TEST					04/06/09	XC
SEE REPORT PAGE FOR MORE INFORMATION.						
to-15 ppbv				EPA TO-15		
Acetone	PPBv	100	0.04		04/04/09	XC
Benzene	PPBv	0.87	0.04		04/04/09	XC
Benzyl Chloride	PPBv	ND	0.04		04/04/09	XC
Bromodichloromethane	PPBv	ND	0.04		04/04/09	XC
Bromoform	PPBv	ND	0.04		04/04/09	XC
Bromomethane	PPBv	ND	0.04		04/04/09	XC
1,3-Butadiene	PPBv	ND	0.04		04/04/09	XC
2-Butanone (MEK)	PPBv	14	0.04		04/04/09	XC
Carbon Disulfide	PPBv	0.09	0.04		04/04/09	XC
Carbon Tetrachloride	PPBv	0.07	0.04		04/04/09	XC
Chlorobenzene	PPBv	ND	0.04		04/04/09	XC
Chlorodibromomethane	PPBv	ND	0.04		04/04/09	XC
Chloroethane	PPBv	ND	0.04		04/04/09	XC
Chloroform	PPBv	0.34	0.04		04/04/09	XC
Chloromethane	PPBv	ND	0.04		04/04/09	XC
Cyclohexane	PPBv	0.38	0.04		04/04/09	XC
1,2-Dibromoethane	PPBv	ND	0.04		04/04/09	XC
1,2-Dichlorobenzene	PPBv	ND	0.04		04/04/09	XC
1,3-Dichlorobenzene	PPBv	ND	0.04		04/04/09	XC
1,4-Dichlorobenzene	PPBv	0.08	0.04		04/04/09	XC
Dichlorodifluoromethane	PPBv	1.2	0.04		04/04/09	XC
1,1-Dichloroethane	PPBv	ND	0.04		04/04/09	XC
1,2-Dichloroethane	PPBv	ND	0.04		04/04/09	XC
1,1-Dichloroethylene	PPBv	ND	0.04		04/04/09	XC
cis-1,2-Dichloroethylene	PPBv	ND	0.04		04/04/09	XC
t-1,2-Dichloroethylene	PPBv	ND	0.04		04/04/09	XC
1,2-Dichloropropane	PPBv	ND	0.04		04/04/09	XC
cis-1,3-Dichloropropene	PPBv	ND	0.04		04/04/09	XC
trans-1,3-Dichloropropene	PPBv	ND	0.04		04/04/09	XC
1,2-Dichlorotetrafluoroethane (114)	PPBv	ND	0.04		04/04/09	XC
Ethanol	PPBv	16	0.04		04/04/09	XC
Ethyl Acetate	PPBv	0.12	0.04		04/04/09	XC

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‡ See attached chain-of-custody record for time sampled

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ANALYTICAL LABORATORY
39 Spruce Street ° East Longmeadow, MA 01028 ° FAX 413/525-6405 ° TEL. 413/525-2332

STEVE KORNDER
AECOM ENVIRONMENT - VERNON HILLS, IL
750 CORPORATE WOODS PARKWAY
VERNON HILLS, IL 60061

4/8/2009

Purchase Order No.:

Project Number: 13069-002-2500
LIMS-BAT #: LIMT-24454
Job Number: 13069-002/2500

Project Location: GREENBROOK SCHOOL
Date Received: 4/3/2009

Field Sample # : **SS1**

Sample ID : **09B10371**

‡Sampled : 4/1/2009
8-HR Sub Slab

Sample Matrix: AIR

Sample Medium : SUMMA

	Units	Results	RL	Method	Date Analyzed	Analyst
to-15 ppbv				EPA TO-15		
Ethylbenzene	PPBv	1.6	0.04		04/04/09	XC
4-Ethyl Toluene	PPBv	0.07	0.04		04/04/09	XC
n-Heptane	PPBv	0.27	0.04		04/04/09	XC
Hexachlorobutadiene	PPBv	ND	0.07		04/04/09	XC
Hexane	PPBv	0.48	0.04		04/04/09	XC
2-Hexanone	PPBv	3.7	0.04		04/04/09	XC
Isopropanol	PPBv	5.6	0.04		04/04/09	XC
Methyl tert-Butyl Ether (MTBE)	PPBv	ND	0.04		04/04/09	XC
Methylene Chloride	PPBv	0.52	0.04		04/04/09	XC
4-Methyl-2-Pentanone (MIBK)	PPBv	18	0.04		04/04/09	XC
Propene	PPBv	ND	0.04		04/04/09	XC
Styrene	PPBv	0.05	0.04		04/04/09	XC
1,1,2,2-Tetrachloroethane	PPBv	ND	0.04		04/04/09	XC
Tetrachloroethylene	PPBv	0.18	0.04		04/04/09	XC
Tetrahydrofuran	PPBv	ND	0.04		04/04/09	XC
Toluene	PPBv	1.1	0.04		04/04/09	XC
1,2,4-Trichlorobenzene	PPBv	ND	0.04		04/04/09	XC
1,1,1-Trichloroethane	PPBv	ND	0.04		04/04/09	XC
1,1,2-Trichloroethane	PPBv	ND	0.04		04/04/09	XC
Trichloroethylene	PPBv	ND	0.04		04/04/09	XC
Trichlorofluoromethane (Freon 11)	PPBv	0.29	0.04		04/04/09	XC
1,1,2-Trichloro-1,2,2-Trifluoroethane	PPBv	0.06	0.04		04/04/09	XC
1,2,4-Trimethylbenzene	PPBv	0.24	0.04		04/04/09	XC
1,3,5-Trimethylbenzene	PPBv	0.07	0.04		04/04/09	XC
Vinyl Acetate	PPBv	ND	0.04		04/04/09	XC
Vinyl Chloride	PPBv	ND	0.04		04/04/09	XC
m/p-Xylene	PPBv	5.3	0.07		04/04/09	XC
o-Xylene	PPBv	1.9	0.04		04/04/09	XC
to-15 ug/m				EPA TO-15		
Acetone	ug/m3	250	0.09		04/04/09	XC
Benzene	ug/m3	2.8	0.12		04/04/09	XC
Benzyl Chloride	ug/m3	ND	0.19		04/04/09	XC
Bromodichloromethane	ug/m3	ND	0.24		04/04/09	XC
Bromoform	ug/m3	ND	0.36		04/04/09	XC
Bromomethane	ug/m3	ND	0.14		04/04/09	XC

RL = Reporting Limit

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NM = Not Measured

* = See end of report for comments and notes applying to this sample

‡ See attached chain-of-custody record for time sampled

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ANALYTICAL LABORATORY

39 Spruce Street ° East Longmeadow, MA 01028 ° FAX 413/525-6405 ° TEL. 413/525-2332

STEVE KORNDER
AECOM ENVIRONMENT - VERNON HILLS, IL
750 CORPORATE WOODS PARKWAY
VERNON HILLS, IL 60061

4/8/2009

Purchase Order No.:

Project Number: 13069-002-2500
LIMS-BAT #: LIMT-24454
Job Number: 13069-002/2500

Project Location: GREENBROOK SCHOOL
Date Received: 4/3/2009

Field Sample # : SS1

Sample ID : 09B10371

‡Sampled : 4/1/2009
8-HR Sub Slab

Sample Matrix: AIR

Sample Medium : SUMMA

	Units	Results	RL	Method	Date Analyzed	Analyst
to-15 ug/m				EPA TO-15		
1,3-Butadiene	ug/m3	ND	0.08		04/04/09	XC
2-Butanone (MEK)	ug/m3	42	0.11		04/04/09	XC
Carbon Disulfide	ug/m3	0.29	0.12		04/04/09	XC
Carbon Tetrachloride	ug/m3	0.44	0.22		04/04/09	XC
Chlorobenzene	ug/m3	ND	0.17		04/04/09	XC
Chlorodibromomethane	ug/m3	ND	0.31		04/04/09	XC
Chloroethane	ug/m3	ND	0.10		04/04/09	XC
Chloroform	ug/m3	1.6	0.17		04/04/09	XC
Chloromethane	ug/m3	ND	0.07		04/04/09	XC
Cyclohexane	ug/m3	1.3	0.12		04/04/09	XC
1,2-Dibromoethane	ug/m3	ND	0.27		04/04/09	XC
1,2-Dichlorobenzene	ug/m3	ND	0.21		04/04/09	XC
1,3-Dichlorobenzene	ug/m3	ND	0.21		04/04/09	XC
1,4-Dichlorobenzene	ug/m3	0.51	0.21		04/04/09	XC
Dichlorodifluoromethane	ug/m3	6.0	0.18		04/04/09	XC
1,1-Dichloroethane	ug/m3	ND	0.14		04/04/09	XC
1,2-Dichloroethane	ug/m3	ND	0.14		04/04/09	XC
1,1-Dichloroethylene	ug/m3	ND	0.14		04/04/09	XC
cis-1,2-Dichloroethylene	ug/m3	ND	0.14		04/04/09	XC
t-1,2-Dichloroethylene	ug/m3	ND	0.14		04/04/09	XC
1,2-Dichloropropane	ug/m3	ND	0.17		04/04/09	XC
cis-1,3-Dichloropropene	ug/m3	ND	0.16		04/04/09	XC
trans-1,3-Dichloropropene	ug/m3	ND	0.16		04/04/09	XC
1,2-Dichlorotetrafluoroethane (114)	ug/m3	ND	0.25		04/04/09	XC
Ethanol	ug/m3	31	0.07		04/04/09	XC
Ethyl Acetate	ug/m3	0.45	0.13		04/04/09	XC
Ethylbenzene	ug/m3	7.0	0.16		04/04/09	XC
4-Ethyl Toluene	ug/m3	0.36	0.18		04/04/09	XC
n-Heptane	ug/m3	1.1	0.14		04/04/09	XC
Hexachlorobutadiene	ug/m3	ND	0.75		04/04/09	XC
Hexane	ug/m3	1.7	0.13		04/04/09	XC
2-Hexanone	ug/m3	15	0.14		04/04/09	XC
Isopropanol	ug/m3	14	0.09		04/04/09	XC
Methyl tert-Butyl Ether (MTBE)	ug/m3	ND	0.13		04/04/09	XC
Methylene Chloride	ug/m3	1.8	0.12		04/04/09	XC

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‡ See attached chain-of-custody record for time sampled

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ANALYTICAL LABORATORY
39 Spruce Street ° East Longmeadow, MA 01028 ° FAX 413/525-6405 ° TEL. 413/525-2332

STEVE KORNDER
AECOM ENVIRONMENT - VERNON HILLS, IL
750 CORPORATE WOODS PARKWAY
VERNON HILLS, IL 60061

4/8/2009

Purchase Order No.:

Project Number: 13069-002-2500
LIMS-BAT #: LIMT-24454
Job Number: 13069-002/2500

Project Location: GREENBROOK SCHOOL
Date Received: 4/3/2009

Field Sample # : SS1

Sample ID : 09B10371

‡Sampled : 4/1/2009
8-HR Sub Slab

Sample Matrix: AIR
Sample Medium : SUMMA

	Units	Results	RL	Method	Date Analyzed	Analyst
to-15 ug/m				EPA TO-15		
4-Methyl-2-Pentanone (MIBK)	ug/m3	74	0.14		04/04/09	XC
Propene	ug/m3	ND	0.07		04/04/09	XC
Styrene	ug/m3	0.23	0.15		04/04/09	XC
1,1,2,2-Tetrachloroethane	ug/m3	ND	0.24		04/04/09	XC
Tetrachloroethylene	ug/m3	1.2	0.24		04/04/09	XC
Tetrahydrofuran	ug/m3	ND	0.11		04/04/09	XC
Toluene	ug/m3	4.2	0.14		04/04/09	XC
1,2,4-Trichlorobenzene	ug/m3	ND	0.26		04/04/09	XC
1,1,1-Trichloroethane	ug/m3	ND	0.19		04/04/09	XC
1,1,2-Trichloroethane	ug/m3	ND	0.19		04/04/09	XC
Trichloroethylene	ug/m3	ND	0.19		04/04/09	XC
Trichlorofluoromethane	ug/m3	1.6	0.20		04/04/09	XC
1,1,2-Trichloro-1,2,2-Trifluoroethane	ug/m3	0.49	0.27		04/04/09	XC
1,2,4-Trimethylbenzene	ug/m3	1.2	0.18		04/04/09	XC
1,3,5-Trimethylbenzene	ug/m3	0.33	0.18		04/04/09	XC
Vinyl Acetate	ug/m3	ND	0.13		04/04/09	XC
Vinyl Chloride	ug/m3	ND	0.10		04/04/09	XC
m/p-Xylene	ug/m3	23	0.31		04/04/09	XC
o-Xylene	ug/m3	8.2	0.16		04/04/09	XC

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‡ See attached chain-of-custody record for time sampled

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ANALYTICAL LABORATORY

39 Spruce Street ° East Longmeadow, MA 01028 ° FAX 413/525-6405 ° TEL. 413/525-2332

STEVE KORNDER
AECOM ENVIRONMENT - VERNON HILLS, IL
750 CORPORATE WOODS PARKWAY
VERNON HILLS, IL 60061

Purchase Order No.:

Project Number: 13069-002-2500
LIMS-BAT #: LIMT-24454
Job Number: 13069-002/2500

Project Location: GREENBROOK SCHOOL
Date Received: 4/3/2009

Field Sample # : SS2

Sample ID : 09B10372

‡Sampled : 4/1/2009
8-HR Sub Slab

Sample Matrix: AIR
Sample Medium : SUMMA

	Units	Results	RL	Method	Date Analyzed	Analyst
air specia						
SPECIAL TEST					04/06/09	XC
SEE REPORT PAGE FOR MORE INFORMATION.						
to-15 ppbv				EPA TO-15		
Acetone	PPBv	14	0.10		04/04/09	XC
Benzene	PPBv	ND	0.10		04/04/09	XC
Benzyl Chloride	PPBv	ND	0.10		04/04/09	XC
Bromodichloromethane	PPBv	ND	0.10		04/04/09	XC
Bromoform	PPBv	ND	0.10		04/04/09	XC
Bromomethane	PPBv	ND	0.10		04/04/09	XC
1,3-Butadiene	PPBv	ND	0.10		04/04/09	XC
2-Butanone (MEK)	PPBv	2.8	0.10		04/04/09	XC
Carbon Disulfide	PPBv	ND	0.10		04/04/09	XC
Carbon Tetrachloride	PPBv	ND	0.10		04/04/09	XC
Chlorobenzene	PPBv	ND	0.10		04/04/09	XC
Chlorodibromomethane	PPBv	ND	0.10		04/04/09	XC
Chloroethane	PPBv	ND	0.10		04/04/09	XC
Chloroform	PPBv	ND	0.10		04/04/09	XC
Chloromethane	PPBv	ND	0.10		04/04/09	XC
Cyclohexane	PPBv	ND	0.10		04/04/09	XC
1,2-Dibromoethane	PPBv	ND	0.10		04/04/09	XC
1,2-Dichlorobenzene	PPBv	ND	0.10		04/04/09	XC
1,3-Dichlorobenzene	PPBv	ND	0.10		04/04/09	XC
1,4-Dichlorobenzene	PPBv	0.11	0.10		04/04/09	XC
Dichlorodifluoromethane	PPBv	1300	0.10		04/04/09	XC
1,1-Dichloroethane	PPBv	ND	0.10		04/04/09	XC
1,2-Dichloroethane	PPBv	ND	0.10		04/04/09	XC
1,1-Dichloroethylene	PPBv	ND	0.10		04/04/09	XC
cis-1,2-Dichloroethylene	PPBv	ND	0.10		04/04/09	XC
t-1,2-Dichloroethylene	PPBv	ND	0.10		04/04/09	XC
1,2-Dichloropropane	PPBv	ND	0.10		04/04/09	XC
cis-1,3-Dichloropropene	PPBv	ND	0.10		04/04/09	XC
trans-1,3-Dichloropropene	PPBv	ND	0.10		04/04/09	XC
1,2-Dichlorotetrafluoroethane (114)	PPBv	ND	0.10		04/04/09	XC
Ethanol	PPBv	3.0	0.10		04/04/09	XC
Ethyl Acetate	PPBv	ND	0.10		04/04/09	XC

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ANALYTICAL LABORATORY
39 Spruce Street ° East Longmeadow, MA 01028 ° FAX 413/525-6405 ° TEL. 413/525-2332

STEVE KORNDER
AECOM ENVIRONMENT - VERNON HILLS, IL
750 CORPORATE WOODS PARKWAY
VERNON HILLS, IL 60061

4/8/2009

Purchase Order No.:

Project Number: 13069-002-2500
LIMS-BAT #: LIMT-24454
Job Number: 13069-002/2500

Project Location: GREENBROOK SCHOOL
Date Received: 4/3/2009

Field Sample # : SS2

Sample ID : 09B10372

‡Sampled : 4/1/2009
8-HR Sub Slab

Sample Matrix: AIR
Sample Medium : SUMMA

	Units	Results	RL	Method	Date Analyzed	Analyst
to-15 ppbv				EPA TO-15		
Ethylbenzene	PPBv	9.1	0.10		04/04/09	XC
4-Ethyl Toluene	PPBv	0.11	0.10		04/04/09	XC
n-Heptane	PPBv	ND	0.10		04/04/09	XC
Hexachlorobutadiene	PPBv	ND	0.20		04/04/09	XC
Hexane	PPBv	0.18	0.10		04/04/09	XC
2-Hexanone	PPBv	0.51	0.10		04/04/09	XC
Isopropanol	PPBv	2.7	0.10		04/04/09	XC
Methyl tert-Butyl Ether (MTBE)	PPBv	ND	0.10		04/04/09	XC
Methylene Chloride	PPBv	0.72	0.10		04/04/09	XC
4-Methyl-2-Pentanone (MIBK)	PPBv	4.8	0.10		04/04/09	XC
Propene	PPBv	ND	0.10		04/04/09	XC
Styrene	PPBv	ND	0.10		04/04/09	XC
1,1,2,2-Tetrachloroethane	PPBv	ND	0.10		04/04/09	XC
Tetrachloroethylene	PPBv	ND	0.10		04/04/09	XC
Tetrahydrofuran	PPBv	ND	0.10		04/04/09	XC
Toluene	PPBv	0.39	0.10		04/04/09	XC
1,2,4-Trichlorobenzene	PPBv	ND	0.10		04/04/09	XC
1,1,1-Trichloroethane	PPBv	ND	0.10		04/04/09	XC
1,1,2-Trichloroethane	PPBv	ND	0.10		04/04/09	XC
Trichloroethylene	PPBv	ND	0.10		04/04/09	XC
Trichlorofluoromethane (Freon 11)	PPBv	0.28	0.10		04/04/09	XC
1,1,2-Trichloro-1,2,2-Trifluoroethane	PPBv	ND	0.10		04/04/09	XC
1,2,4-Trimethylbenzene	PPBv	0.34	0.10		04/04/09	XC
1,3,5-Trimethylbenzene	PPBv	0.12	0.10		04/04/09	XC
Vinyl Acetate	PPBv	ND	0.10		04/04/09	XC
Vinyl Chloride	PPBv	ND	0.10		04/04/09	XC
m/p-Xylene	PPBv	29	0.20		04/04/09	XC
o-Xylene	PPBv	11	0.10		04/04/09	XC
to-15 ug/m				EPA TO-15		
Acetone	ug/m3	32	0.24		04/04/09	XC
Benzene	ug/m3	ND	0.32		04/04/09	XC
Benzyl Chloride	ug/m3	ND	0.52		04/04/09	XC
Bromodichloromethane	ug/m3	ND	0.66		04/04/09	XC
Bromoform	ug/m3	ND	1.1		04/04/09	XC
Bromomethane	ug/m3	ND	0.38		04/04/09	XC

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ANALYTICAL LABORATORY
39 Spruce Street ° East Longmeadow, MA 01028 ° FAX 413/525-6405 ° TEL. 413/525-2332

STEVE KORNDER
AECOM ENVIRONMENT - VERNON HILLS, IL
750 CORPORATE WOODS PARKWAY
VERNON HILLS, IL 60061

4/8/2009

Purchase Order No.:

Project Number: 13069-002-2500
LIMS-BAT #: LIMT-24454
Job Number: 13069-002/2500

Project Location: GREENBROOK SCHOOL
Date Received: 4/3/2009

Field Sample # : SS2

Sample ID : 09B10372

‡Sampled : 4/1/2009
8-HR Sub Slab

Sample Matrix: AIR
Sample Medium : SUMMA

	Units	Results	RL	Method	Date Analyzed	Analyst
to-15 ug/m				EPA TO-15		
1,3-Butadiene	ug/m3	ND	0.22		04/04/09	XC
2-Butanone (MEK)	ug/m3	8.4	0.30		04/04/09	XC
Carbon Disulfide	ug/m3	ND	0.32		04/04/09	XC
Carbon Tetrachloride	ug/m3	ND	0.62		04/04/09	XC
Chlorobenzene	ug/m3	ND	0.46		04/04/09	XC
Chlorodibromomethane	ug/m3	ND	0.86		04/04/09	XC
Chloroethane	ug/m3	ND	0.26		04/04/09	XC
Chloroform	ug/m3	ND	0.48		04/04/09	XC
Chloromethane	ug/m3	ND	0.20		04/04/09	XC
Cyclohexane	ug/m3	ND	0.34		04/04/09	XC
1,2-Dibromoethane	ug/m3	ND	0.76		04/04/09	XC
1,2-Dichlorobenzene	ug/m3	ND	0.60		04/04/09	XC
1,3-Dichlorobenzene	ug/m3	ND	0.60		04/04/09	XC
1,4-Dichlorobenzene	ug/m3	0.64	0.60		04/04/09	XC
Dichlorodifluoromethane	ug/m3	6600	0.50		04/04/09	XC
1,1-Dichloroethane	ug/m3	ND	0.40		04/04/09	XC
1,2-Dichloroethane	ug/m3	ND	0.40		04/04/09	XC
1,1-Dichloroethylene	ug/m3	ND	0.40		04/04/09	XC
cis-1,2-Dichloroethylene	ug/m3	ND	0.40		04/04/09	XC
t-1,2-Dichloroethylene	ug/m3	ND	0.40		04/04/09	XC
1,2-Dichloropropane	ug/m3	ND	0.46		04/04/09	XC
cis-1,3-Dichloropropene	ug/m3	ND	0.44		04/04/09	XC
trans-1,3-Dichloropropene	ug/m3	ND	0.44		04/04/09	XC
1,2-Dichlorotetrafluoroethane (114)	ug/m3	ND	0.70		04/04/09	XC
Ethanol	ug/m3	5.7	0.18		04/04/09	XC
Ethyl Acetate	ug/m3	ND	0.36		04/04/09	XC
Ethylbenzene	ug/m3	39	0.44		04/04/09	XC
4-Ethyl Toluene	ug/m3	0.56	0.50		04/04/09	XC
n-Heptane	ug/m3	ND	0.40		04/04/09	XC
Hexachlorobutadiene	ug/m3	ND	2.2		04/04/09	XC
Hexane	ug/m3	0.62	0.36		04/04/09	XC
2-Hexanone	ug/m3	2.1	0.40		04/04/09	XC
Isopropanol	ug/m3	6.7	0.24		04/04/09	XC
Methyl tert-Butyl Ether (MTBE)	ug/m3	ND	0.36		04/04/09	XC
Methylene Chloride	ug/m3	2.5	0.34		04/04/09	XC

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‡ See attached chain-of-custody record for time sampled

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ANALYTICAL LABORATORY
39 Spruce Street ° East Longmeadow, MA 01028 ° FAX 413/525-6405 ° TEL. 413/525-2332

STEVE KORNDER
AECOM ENVIRONMENT - VERNON HILLS, IL
750 CORPORATE WOODS PARKWAY
VERNON HILLS, IL 60061

4/8/2009

Purchase Order No.:

Project Number: 13069-002-2500
LIMS-BAT #: LIMT-24454
Job Number: 13069-002/2500

Project Location: GREENBROOK SCHOOL
Date Received: 4/3/2009

Field Sample # : SS2

Sample ID : 09B10372

‡Sampled : 4/1/2009
8-HR Sub Slab

Sample Matrix: AIR
Sample Medium : SUMMA

	Units	Results	RL	Method	Date Analyzed	Analyst
to-15 ug/m				EPA TO-15		
4-Methyl-2-Pentanone (MIBK)	ug/m3	19	0.40		04/04/09	XC
Propene	ug/m3	ND	0.18		04/04/09	XC
Styrene	ug/m3	ND	0.42		04/04/09	XC
1,1,2,2-Tetrachloroethane	ug/m3	ND	0.68		04/04/09	XC
Tetrachloroethylene	ug/m3	ND	0.68		04/04/09	XC
Tetrahydrofuran	ug/m3	ND	0.30		04/04/09	XC
Toluene	ug/m3	1.5	0.38		04/04/09	XC
1,2,4-Trichlorobenzene	ug/m3	ND	0.74		04/04/09	XC
1,1,1-Trichloroethane	ug/m3	ND	0.54		04/04/09	XC
1,1,2-Trichloroethane	ug/m3	ND	0.54		04/04/09	XC
Trichloroethylene	ug/m3	ND	0.54		04/04/09	XC
Trichlorofluoromethane	ug/m3	1.6	0.56		04/04/09	XC
1,1,2-Trichloro-1,2,2-Trifluoroethane	ug/m3	ND	0.76		04/04/09	XC
1,2,4-Trimethylbenzene	ug/m3	1.7	0.50		04/04/09	XC
1,3,5-Trimethylbenzene	ug/m3	0.57	0.50		04/04/09	XC
Vinyl Acetate	ug/m3	ND	0.36		04/04/09	XC
Vinyl Chloride	ug/m3	ND	0.26		04/04/09	XC
m/p-Xylene	ug/m3	120	0.86		04/04/09	XC
o-Xylene	ug/m3	47	0.44		04/04/09	XC

RL = Reporting Limit

ND = Not Detected at or above the Reporting Limit

NM = Not Measured

* = See end of report for comments and notes applying to this sample

‡ See attached chain-of-custody record for time sampled

con-test®
ANALYTICAL LABORATORY

39 Spruce Street ° East Longmeadow, MA 01028 ° FAX 413/525-6405 ° TEL. 413/525-2332

STEVE KORNDER
AECOM ENVIRONMENT - VERNON HILLS, IL
750 CORPORATE WOODS PARKWAY
VERNON HILLS, IL 60061

Purchase Order No.:

Project Number: 13069-002-2500
LIMS-BAT #: LIMT-24454
Job Number: 13069-002/2500

Project Location: GREENBROOK SCHOOL
Date Received: 4/3/2009

Field Sample # : SS3

Sample ID : 09B10373

‡Sampled : 4/1/2009
8-HR Sub Slab

Sample Matrix: AIR
Sample Medium : SUMMA

	Units	Results	RL	Method	Date Analyzed	Analyst
air specia						
SPECIAL TEST					04/06/09	XC
SEE REPORT PAGE FOR MORE INFORMATION.						
to-15 ppbv				EPA TO-15		
Acetone	PPBv	15	0.04		04/04/09	XC
Benzene	PPBv	0.07	0.04		04/04/09	XC
Benzyl Chloride	PPBv	ND	0.04		04/04/09	XC
Bromodichloromethane	PPBv	ND	0.04		04/04/09	XC
Bromoform	PPBv	ND	0.04		04/04/09	XC
Bromomethane	PPBv	ND	0.04		04/04/09	XC
1,3-Butadiene	PPBv	ND	0.04		04/04/09	XC
2-Butanone (MEK)	PPBv	3.1	0.04		04/04/09	XC
Carbon Disulfide	PPBv	0.10	0.04		04/04/09	XC
Carbon Tetrachloride	PPBv	0.06	0.04		04/04/09	XC
Chlorobenzene	PPBv	ND	0.04		04/04/09	XC
Chlorodibromomethane	PPBv	ND	0.04		04/04/09	XC
Chloroethane	PPBv	ND	0.04		04/04/09	XC
Chloroform	PPBv	ND	0.04		04/04/09	XC
Chloromethane	PPBv	ND	0.04		04/04/09	XC
Cyclohexane	PPBv	ND	0.04		04/04/09	XC
1,2-Dibromoethane	PPBv	ND	0.04		04/04/09	XC
1,2-Dichlorobenzene	PPBv	ND	0.04		04/04/09	XC
1,3-Dichlorobenzene	PPBv	ND	0.04		04/04/09	XC
1,4-Dichlorobenzene	PPBv	0.13	0.04		04/04/09	XC
Dichlorodifluoromethane	PPBv	70	0.04		04/04/09	XC
1,1-Dichloroethane	PPBv	ND	0.04		04/04/09	XC
1,2-Dichloroethane	PPBv	ND	0.04		04/04/09	XC
1,1-Dichloroethylene	PPBv	ND	0.04		04/04/09	XC
cis-1,2-Dichloroethylene	PPBv	ND	0.04		04/04/09	XC
t-1,2-Dichloroethylene	PPBv	ND	0.04		04/04/09	XC
1,2-Dichloropropane	PPBv	ND	0.04		04/04/09	XC
cis-1,3-Dichloropropene	PPBv	ND	0.04		04/04/09	XC
trans-1,3-Dichloropropene	PPBv	ND	0.04		04/04/09	XC
1,2-Dichlorotetrafluoroethane (114)	PPBv	ND	0.04		04/04/09	XC
Ethanol	PPBv	8.6	0.04		04/04/09	XC
Ethyl Acetate	PPBv	0.05	0.04		04/04/09	XC

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ANALYTICAL LABORATORY

39 Spruce Street ° East Longmeadow, MA 01028 ° FAX 413/525-6405 ° TEL. 413/525-2332

STEVE KORNDER
AECOM ENVIRONMENT - VERNON HILLS, IL
750 CORPORATE WOODS PARKWAY
VERNON HILLS, IL 60061

4/8/2009

Purchase Order No.:

Project Number: 13069-002-2500
LIMS-BAT #: LIMT-24454
Job Number: 13069-002/2500

Project Location: GREENBROOK SCHOOL
Date Received: 4/3/2009

Field Sample # : SS3

Sample ID : 09B10373

‡Sampled : 4/1/2009
8-HR Sub Slab

Sample Matrix: AIR

Sample Medium : SUMMA

	Units	Results	RL	Method	Date Analyzed	Analyst
to-15 ppbv				EPA TO-15		
Ethylbenzene	PPBv	0.10	0.04		04/04/09	XC
4-Ethyl Toluene	PPBv	0.07	0.04		04/04/09	XC
n-Heptane	PPBv	0.14	0.04		04/04/09	XC
Hexachlorobutadiene	PPBv	ND	0.07		04/04/09	XC
Hexane	PPBv	0.17	0.04		04/04/09	XC
2-Hexanone	PPBv	0.71	0.04		04/04/09	XC
Isopropanol	PPBv	2.8	0.04		04/04/09	XC
Methyl tert-Butyl Ether (MTBE)	PPBv	ND	0.04		04/04/09	XC
Methylene Chloride	PPBv	0.28	0.04		04/04/09	XC
4-Methyl-2-Pentanone (MIBK)	PPBv	3.2	0.04		04/04/09	XC
Propene	PPBv	ND	0.04		04/04/09	XC
Styrene	PPBv	0.05	0.04		04/04/09	XC
1,1,2,2-Tetrachloroethane	PPBv	ND	0.04		04/04/09	XC
Tetrachloroethylene	PPBv	0.08	0.04		04/04/09	XC
Tetrahydrofuran	PPBv	ND	0.04		04/04/09	XC
Toluene	PPBv	0.26	0.04		04/04/09	XC
1,2,4-Trichlorobenzene	PPBv	ND	0.04		04/04/09	XC
1,1,1-Trichloroethane	PPBv	0.64	0.04		04/04/09	XC
1,1,2-Trichloroethane	PPBv	ND	0.04		04/04/09	XC
Trichloroethylene	PPBv	ND	0.04		04/04/09	XC
Trichlorofluoromethane (Freon 11)	PPBv	0.28	0.04		04/04/09	XC
1,1,2-Trichloro-1,2,2-Trifluoroethane	PPBv	0.07	0.04		04/04/09	XC
1,2,4-Trimethylbenzene	PPBv	0.26	0.04		04/04/09	XC
1,3,5-Trimethylbenzene	PPBv	0.06	0.04		04/04/09	XC
Vinyl Acetate	PPBv	ND	0.04		04/04/09	XC
Vinyl Chloride	PPBv	ND	0.04		04/04/09	XC
m/p-Xylene	PPBv	0.32	0.07		04/04/09	XC
o-Xylene	PPBv	0.12	0.04		04/04/09	XC
to-15 ug/m				EPA TO-15		
Acetone	ug/m3	35	0.09		04/04/09	XC
Benzene	ug/m3	0.22	0.12		04/04/09	XC
Benzyl Chloride	ug/m3	ND	0.19		04/04/09	XC
Bromodichloromethane	ug/m3	ND	0.24		04/04/09	XC
Bromoform	ug/m3	ND	0.36		04/04/09	XC
Bromomethane	ug/m3	ND	0.14		04/04/09	XC

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‡ See attached chain-of-custody record for time sampled

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ANALYTICAL LABORATORY

39 Spruce Street ° East Longmeadow, MA 01028 ° FAX 413/525-6405 ° TEL. 413/525-2332

STEVE KORNDER
AECOM ENVIRONMENT - VERNON HILLS, IL
750 CORPORATE WOODS PARKWAY
VERNON HILLS, IL 60061

4/8/2009

Purchase Order No.:

Project Number: 13069-002-2500
LIMS-BAT #: LIMT-24454
Job Number: 13069-002/2500

Project Location: GREENBROOK SCHOOL
Date Received: 4/3/2009

Field Sample # : SS3

Sample ID : 09B10373

‡Sampled : 4/1/2009
8-HR Sub Slab

Sample Matrix: AIR

Sample Medium : SUMMA

	Units	Results	RL	Method	Date Analyzed	Analyst
to-15 ug/m				EPA TO-15		
1,3-Butadiene	ug/m3	ND	0.08		04/04/09	XC
2-Butanone (MEK)	ug/m3	9.2	0.11		04/04/09	XC
Carbon Disulfide	ug/m3	0.31	0.12		04/04/09	XC
Carbon Tetrachloride	ug/m3	0.37	0.22		04/04/09	XC
Chlorobenzene	ug/m3	ND	0.17		04/04/09	XC
Chlorodibromomethane	ug/m3	ND	0.31		04/04/09	XC
Chloroethane	ug/m3	ND	0.10		04/04/09	XC
Chloroform	ug/m3	ND	0.17		04/04/09	XC
Chloromethane	ug/m3	ND	0.07		04/04/09	XC
Cyclohexane	ug/m3	ND	0.12		04/04/09	XC
1,2-Dibromoethane	ug/m3	ND	0.27		04/04/09	XC
1,2-Dichlorobenzene	ug/m3	ND	0.21		04/04/09	XC
1,3-Dichlorobenzene	ug/m3	ND	0.21		04/04/09	XC
1,4-Dichlorobenzene	ug/m3	0.78	0.21		04/04/09	XC
Dichlorodifluoromethane	ug/m3	350	0.18		04/04/09	XC
1,1-Dichloroethane	ug/m3	ND	0.14		04/04/09	XC
1,2-Dichloroethane	ug/m3	ND	0.14		04/04/09	XC
1,1-Dichloroethylene	ug/m3	ND	0.14		04/04/09	XC
cis-1,2-Dichloroethylene	ug/m3	ND	0.14		04/04/09	XC
t-1,2-Dichloroethylene	ug/m3	ND	0.14		04/04/09	XC
1,2-Dichloropropane	ug/m3	ND	0.17		04/04/09	XC
cis-1,3-Dichloropropene	ug/m3	ND	0.16		04/04/09	XC
trans-1,3-Dichloropropene	ug/m3	ND	0.16		04/04/09	XC
1,2-Dichlorotetrafluoroethane (114)	ug/m3	ND	0.25		04/04/09	XC
Ethanol	ug/m3	16	0.07		04/04/09	XC
Ethyl Acetate	ug/m3	0.19	0.13		04/04/09	XC
Ethylbenzene	ug/m3	0.43	0.16		04/04/09	XC
4-Ethyl Toluene	ug/m3	0.34	0.18		04/04/09	XC
n-Heptane	ug/m3	0.57	0.14		04/04/09	XC
Hexachlorobutadiene	ug/m3	ND	0.75		04/04/09	XC
Hexane	ug/m3	0.60	0.13		04/04/09	XC
2-Hexanone	ug/m3	2.9	0.14		04/04/09	XC
Isopropanol	ug/m3	6.8	0.09		04/04/09	XC
Methyl tert-Butyl Ether (MTBE)	ug/m3	ND	0.13		04/04/09	XC
Methylene Chloride	ug/m3	0.99	0.12		04/04/09	XC

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‡ See attached chain-of-custody record for time sampled

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ANALYTICAL LABORATORY
39 Spruce Street ° East Longmeadow, MA 01028 ° FAX 413/525-6405 ° TEL. 413/525-2332

STEVE KORNDER
AECOM ENVIRONMENT - VERNON HILLS, IL
750 CORPORATE WOODS PARKWAY
VERNON HILLS, IL 60061

Purchase Order No.:

Project Number: 13069-002-2500
LIMS-BAT #: LIMT-24454
Job Number: 13069-002/2500

Project Location: GREENBROOK SCHOOL
Date Received: 4/3/2009

Field Sample # : SS3

Sample ID : 09B10373

‡Sampled : 4/1/2009
8-HR Sub Slab

Sample Matrix: AIR
Sample Medium : SUMMA

	Units	Results	RL	Method	Date Analyzed	Analyst
to-15 ug/m				EPA TO-15		
4-Methyl-2-Pentanone (MIBK)	ug/m3	13	0.14		04/04/09	XC
Propene	ug/m3	ND	0.07		04/04/09	XC
Styrene	ug/m3	0.21	0.15		04/04/09	XC
1,1,2,2-Tetrachloroethane	ug/m3	ND	0.24		04/04/09	XC
Tetrachloroethylene	ug/m3	0.54	0.24		04/04/09	XC
Tetrahydrofuran	ug/m3	ND	0.11		04/04/09	XC
Toluene	ug/m3	0.98	0.14		04/04/09	XC
1,2,4-Trichlorobenzene	ug/m3	ND	0.26		04/04/09	XC
1,1,1-Trichloroethane	ug/m3	3.5	0.19		04/04/09	XC
1,1,2-Trichloroethane	ug/m3	ND	0.19		04/04/09	XC
Trichloroethylene	ug/m3	ND	0.19		04/04/09	XC
Trichlorofluoromethane	ug/m3	1.6	0.20		04/04/09	XC
1,1,2-Trichloro-1,2,2-Trifluoroethane	ug/m3	0.53	0.27		04/04/09	XC
1,2,4-Trimethylbenzene	ug/m3	1.3	0.18		04/04/09	XC
1,3,5-Trimethylbenzene	ug/m3	0.30	0.18		04/04/09	XC
Vinyl Acetate	ug/m3	ND	0.13		04/04/09	XC
Vinyl Chloride	ug/m3	ND	0.10		04/04/09	XC
m/p-Xylene	ug/m3	1.4	0.31		04/04/09	XC
o-Xylene	ug/m3	0.52	0.16		04/04/09	XC

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ANALYTICAL LABORATORY

39 Spruce Street ° East Longmeadow, MA 01028 ° FAX 413/525-6405 ° TEL. 413/525-2332

STEVE KORNDER
AECOM ENVIRONMENT - VERNON HILLS, IL
750 CORPORATE WOODS PARKWAY
VERNON HILLS, IL 60061

Purchase Order No.:

4/8/2009

Project Number: 13069-002-2500
LIMS-BAT #: LIMT-24454
Job Number: 13069-002/2500

Project Location: GREENBROOK SCHOOL
Date Received: 4/3/2009

Field Sample # : SS4

Sample ID : 09B10374
‡Sampled : 4/1/2009
8-HR Sub Slab
Sample Matrix: AIR
Sample Medium : SUMMA

	Units	Results	RL	Method	Date Analyzed	Analyst
air specia						
SPECIAL TEST					04/06/09	XC
SEE REPORT PAGE FOR MORE INFORMATION.						
to-15 ppbv				EPA TO-15		
Acetone	PPBv	16	0.04		04/04/09	XC
Benzene	PPBv	0.17	0.04		04/04/09	XC
Benzyl Chloride	PPBv	ND	0.04		04/04/09	XC
Bromodichloromethane	PPBv	ND	0.04		04/04/09	XC
Bromoform	PPBv	ND	0.04		04/04/09	XC
Bromomethane	PPBv	ND	0.04		04/04/09	XC
1,3-Butadiene	PPBv	ND	0.04		04/04/09	XC
2-Butanone (MEK)	PPBv	1.3	0.04		04/04/09	XC
Carbon Disulfide	PPBv	0.08	0.04		04/04/09	XC
Carbon Tetrachloride	PPBv	0.07	0.04		04/04/09	XC
Chlorobenzene	PPBv	ND	0.04		04/04/09	XC
Chlorodibromomethane	PPBv	ND	0.04		04/04/09	XC
Chloroethane	PPBv	ND	0.04		04/04/09	XC
Chloroform	PPBv	ND	0.04		04/04/09	XC
Chloromethane	PPBv	0.14	0.04		04/04/09	XC
Cyclohexane	PPBv	ND	0.04		04/04/09	XC
1,2-Dibromoethane	PPBv	ND	0.04		04/04/09	XC
1,2-Dichlorobenzene	PPBv	ND	0.04		04/04/09	XC
1,3-Dichlorobenzene	PPBv	ND	0.04		04/04/09	XC
1,4-Dichlorobenzene	PPBv	0.09	0.04		04/04/09	XC
Dichlorodifluoromethane	PPBv	0.51	0.04		04/04/09	XC
1,1-Dichloroethane	PPBv	ND	0.04		04/04/09	XC
1,2-Dichloroethane	PPBv	ND	0.04		04/04/09	XC
1,1-Dichloroethylene	PPBv	ND	0.04		04/04/09	XC
cis-1,2-Dichloroethylene	PPBv	ND	0.04		04/04/09	XC
t-1,2-Dichloroethylene	PPBv	ND	0.04		04/04/09	XC
1,2-Dichloropropane	PPBv	ND	0.04		04/04/09	XC
cis-1,3-Dichloropropene	PPBv	ND	0.04		04/04/09	XC
trans-1,3-Dichloropropene	PPBv	ND	0.04		04/04/09	XC
1,2-Dichlorotetrafluoroethane (114)	PPBv	ND	0.04		04/04/09	XC
Ethanol	PPBv	6.0	0.04		04/04/09	XC
Ethyl Acetate	PPBv	ND	0.04		04/04/09	XC

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‡ See attached chain-of-custody record for time sampled

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ANALYTICAL LABORATORY
39 Spruce Street ° East Longmeadow, MA 01028 ° FAX 413/525-6405 ° TEL. 413/525-2332

STEVE KORNDER
AECOM ENVIRONMENT - VERNON HILLS, IL
750 CORPORATE WOODS PARKWAY
VERNON HILLS, IL 60061

4/8/2009

Purchase Order No.:

Project Number: 13069-002-2500
LIMS-BAT #: LIMT-24454
Job Number: 13069-002/2500

Project Location: GREENBROOK SCHOOL
Date Received: 4/3/2009

Field Sample # : SS4

Sample ID : 09B10374

‡Sampled : 4/1/2009
8-HR Sub Slab

Sample Matrix: AIR
Sample Medium : SUMMA

	Units	Results	RL	Method	Date Analyzed	Analyst
to-15 ppbv				EPA TO-15		
Ethylbenzene	PPBv	1.6	0.04		04/04/09	XC
4-Ethyl Toluene	PPBv	0.07	0.04		04/04/09	XC
n-Heptane	PPBv	0.12	0.04		04/04/09	XC
Hexachlorobutadiene	PPBv	ND	0.07		04/04/09	XC
Hexane	PPBv	0.20	0.04		04/04/09	XC
2-Hexanone	PPBv	0.14	0.04		04/04/09	XC
Isopropanol	PPBv	2.2	0.04		04/04/09	XC
Methyl tert-Butyl Ether (MTBE)	PPBv	ND	0.04		04/04/09	XC
Methylene Chloride	PPBv	0.42	0.04		04/04/09	XC
4-Methyl-2-Pentanone (MIBK)	PPBv	0.42	0.04		04/04/09	XC
Propene	PPBv	ND	0.04		04/04/09	XC
Styrene	PPBv	0.04	0.04		04/04/09	XC
1,1,2,2-Tetrachloroethane	PPBv	ND	0.04		04/04/09	XC
Tetrachloroethylene	PPBv	ND	0.04		04/04/09	XC
Tetrahydrofuran	PPBv	ND	0.04		04/04/09	XC
Toluene	PPBv	0.48	0.04		04/04/09	XC
1,2,4-Trichlorobenzene	PPBv	ND	0.04		04/04/09	XC
1,1,1-Trichloroethane	PPBv	ND	0.04		04/04/09	XC
1,1,2-Trichloroethane	PPBv	ND	0.04		04/04/09	XC
Trichloroethylene	PPBv	ND	0.04		04/04/09	XC
Trichlorofluoromethane (Freon 11)	PPBv	0.23	0.04		04/04/09	XC
1,1,2-Trichloro-1,2,2-Trifluoroethane	PPBv	0.06	0.04		04/04/09	XC
1,2,4-Trimethylbenzene	PPBv	0.25	0.04		04/04/09	XC
1,3,5-Trimethylbenzene	PPBv	0.06	0.04		04/04/09	XC
Vinyl Acetate	PPBv	ND	0.04		04/04/09	XC
Vinyl Chloride	PPBv	ND	0.04		04/04/09	XC
m/p-Xylene	PPBv	6.1	0.07		04/04/09	XC
o-Xylene	PPBv	2.0	0.04		04/04/09	XC
to-15 ug/m				EPA TO-15		
Acetone	ug/m3	37	0.09		04/04/09	XC
Benzene	ug/m3	0.54	0.12		04/04/09	XC
Benzyl Chloride	ug/m3	ND	0.19		04/04/09	XC
Bromodichloromethane	ug/m3	ND	0.24		04/04/09	XC
Bromoform	ug/m3	ND	0.36		04/04/09	XC
Bromomethane	ug/m3	ND	0.14		04/04/09	XC

RL = Reporting Limit

ND = Not Detected at or above the Reporting Limit

NM = Not Measured

* = See end of report for comments and notes applying to this sample

‡ See attached chain-of-custody record for time sampled

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ANALYTICAL LABORATORY
39 Spruce Street ° East Longmeadow, MA 01028 ° FAX 413/525-6405 ° TEL. 413/525-2332

STEVE KORNDER
AECOM ENVIRONMENT - VERNON HILLS, IL
750 CORPORATE WOODS PARKWAY
VERNON HILLS, IL 60061

4/8/2009

Purchase Order No.:

Project Number: 13069-002-2500
LIMS-BAT #: LIMT-24454
Job Number: 13069-002/2500

Project Location: GREENBROOK SCHOOL
Date Received: 4/3/2009

Field Sample # : SS4

Sample ID : 09B10374

‡Sampled : 4/1/2009
8-HR Sub Slab

Sample Matrix: AIR
Sample Medium : SUMMA

	Units	Results	RL	Method	Date Analyzed	Analyst
to-15 ug/m				EPA TO-15		
1,3-Butadiene	ug/m3	ND	0.08		04/04/09	XC
2-Butanone (MEK)	ug/m3	3.7	0.11		04/04/09	XC
Carbon Disulfide	ug/m3	0.25	0.12		04/04/09	XC
Carbon Tetrachloride	ug/m3	0.42	0.22		04/04/09	XC
Chlorobenzene	ug/m3	ND	0.17		04/04/09	XC
Chlorodibromomethane	ug/m3	ND	0.31		04/04/09	XC
Chloroethane	ug/m3	ND	0.10		04/04/09	XC
Chloroform	ug/m3	ND	0.17		04/04/09	XC
Chloromethane	ug/m3	0.28	0.07		04/04/09	XC
Cyclohexane	ug/m3	ND	0.12		04/04/09	XC
1,2-Dibromoethane	ug/m3	ND	0.27		04/04/09	XC
1,2-Dichlorobenzene	ug/m3	ND	0.21		04/04/09	XC
1,3-Dichlorobenzene	ug/m3	ND	0.21		04/04/09	XC
1,4-Dichlorobenzene	ug/m3	0.54	0.21		04/04/09	XC
Dichlorodifluoromethane	ug/m3	2.5	0.18		04/04/09	XC
1,1-Dichloroethane	ug/m3	ND	0.14		04/04/09	XC
1,2-Dichloroethane	ug/m3	ND	0.14		04/04/09	XC
1,1-Dichloroethylene	ug/m3	ND	0.14		04/04/09	XC
cis-1,2-Dichloroethylene	ug/m3	ND	0.14		04/04/09	XC
t-1,2-Dichloroethylene	ug/m3	ND	0.14		04/04/09	XC
1,2-Dichloropropane	ug/m3	ND	0.17		04/04/09	XC
cis-1,3-Dichloropropene	ug/m3	ND	0.16		04/04/09	XC
trans-1,3-Dichloropropene	ug/m3	ND	0.16		04/04/09	XC
1,2-Dichlorotetrafluoroethane (114)	ug/m3	ND	0.25		04/04/09	XC
Ethanol	ug/m3	11	0.07		04/04/09	XC
Ethyl Acetate	ug/m3	ND	0.13		04/04/09	XC
Ethylbenzene	ug/m3	7.0	0.16		04/04/09	XC
4-Ethyl Toluene	ug/m3	0.32	0.18		04/04/09	XC
n-Heptane	ug/m3	0.49	0.14		04/04/09	XC
Hexachlorobutadiene	ug/m3	ND	0.75		04/04/09	XC
Hexane	ug/m3	0.70	0.13		04/04/09	XC
2-Hexanone	ug/m3	0.58	0.14		04/04/09	XC
Isopropanol	ug/m3	5.4	0.09		04/04/09	XC
Methyl tert-Butyl Ether (MTBE)	ug/m3	ND	0.13		04/04/09	XC
Methylene Chloride	ug/m3	1.5	0.12		04/04/09	XC

RL = Reporting Limit

ND = Not Detected at or above the Reporting Limit

NM = Not Measured

* = See end of report for comments and notes applying to this sample

‡ See attached chain-of-custody record for time sampled

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STEVE KORNDER
AECOM ENVIRONMENT - VERNON HILLS, IL
750 CORPORATE WOODS PARKWAY
VERNON HILLS, IL 60061

4/8/2009

Purchase Order No.:

Project Number: 13069-002-2500
LIMS-BAT #: LIMT-24454
Job Number: 13069-002/2500

Project Location: GREENBROOK SCHOOL
Date Received: 4/3/2009

Field Sample # : SS4

Sample ID : 09B10374

‡Sampled : 4/1/2009
8-HR Sub Slab

Sample Matrix: AIR
Sample Medium : SUMMA

	Units	Results	RL	Method	Date Analyzed	Analyst
to-15 ug/m				EPA TO-15		
4-Methyl-2-Pentanone (MIBK)	ug/m3	1.7	0.14		04/04/09	XC
Propene	ug/m3	ND	0.07		04/04/09	XC
Styrene	ug/m3	0.18	0.15		04/04/09	XC
1,1,2,2-Tetrachloroethane	ug/m3	ND	0.24		04/04/09	XC
Tetrachloroethylene	ug/m3	ND	0.24		04/04/09	XC
Tetrahydrofuran	ug/m3	ND	0.11		04/04/09	XC
Toluene	ug/m3	1.8	0.14		04/04/09	XC
1,2,4-Trichlorobenzene	ug/m3	ND	0.26		04/04/09	XC
1,1,1-Trichloroethane	ug/m3	ND	0.19		04/04/09	XC
1,1,2-Trichloroethane	ug/m3	ND	0.19		04/04/09	XC
Trichloroethylene	ug/m3	ND	0.19		04/04/09	XC
Trichlorofluoromethane	ug/m3	1.3	0.20		04/04/09	XC
1,1,2-Trichloro-1,2,2-Trifluoroethane	ug/m3	0.48	0.27		04/04/09	XC
1,2,4-Trimethylbenzene	ug/m3	1.2	0.18		04/04/09	XC
1,3,5-Trimethylbenzene	ug/m3	0.29	0.18		04/04/09	XC
Vinyl Acetate	ug/m3	ND	0.13		04/04/09	XC
Vinyl Chloride	ug/m3	ND	0.10		04/04/09	XC
m/p-Xylene	ug/m3	26	0.31		04/04/09	XC
o-Xylene	ug/m3	8.8	0.16		04/04/09	XC

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‡ See attached chain-of-custody record for time sampled

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STEVE KORNDER
AECOM ENVIRONMENT - VERNON HILLS, IL
750 CORPORATE WOODS PARKWAY
VERNON HILLS, IL 60061

Purchase Order No.:

Project Number: 13069-002-2500
LIMS-BAT #: LIMT-24454
Job Number: 13069-002/2500

Project Location: GREENBROOK SCHOOL
Date Received: 4/3/2009
The following notes were attached to the reported analysis :

Sample ID: * 09B10368
Analysis: Ethanol

REPORTED RESULT IS ESTIMATED. VALUE REPORTED OVER VERIFIED CALIBRATION RANGE.

Sample ID: * 09B10369
Analysis: Ethanol

REPORTED RESULT IS ESTIMATED. VALUE REPORTED OVER VERIFIED CALIBRATION RANGE.

Sample ID: * 09B10370
Analysis: Ethanol

REPORTED RESULT IS ESTIMATED. VALUE REPORTED OVER VERIFIED CALIBRATION RANGE.

** END OF REPORT **

RL = Reporting Limit

ND = Not Detected at or above the Reporting Limit

NM = Not Measured

* = See end of report for comments and notes applying to this sample

‡ See attached chain-of-custody record for time sampled

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QC SUMMARY REPORT

SAMPLE QC: Sample Results with Duplicates
Sample Matrix Spikes and Matrix Spike Duplicates

BATCH QC: Lab fortified Blanks and Duplicates
Standard Reference Materials and Duplicates
Method Blanks

Report Date: 4/8/2009 Lims Bat # : LIMT-24454

QC Batch Number: BATCH-16391

Sample Id	Analysis	QC Analysis	Values	Units	Limits
09B10367					
	4-Bromofluorobenzene	Surrogate Recovery	106.25	%	70-130
09B10368					
	4-Bromofluorobenzene	Surrogate Recovery	108.12	%	70-130
09B10369					
	4-Bromofluorobenzene	Surrogate Recovery	106.87	%	70-130
09B10370					
	4-Bromofluorobenzene	Surrogate Recovery	106.37	%	70-130
09B10371					
	4-Bromofluorobenzene	Surrogate Recovery	107.75	%	70-130
09B10372					
	4-Bromofluorobenzene	Surrogate Recovery	105.37	%	70-130
09B10373					
	4-Bromofluorobenzene	Surrogate Recovery	105.62	%	70-130
09B10374					
	4-Bromofluorobenzene	Surrogate Recovery	110.75	%	70-130
09B10375					
	4-Bromofluorobenzene	Surrogate Recovery	107.25	%	70-130
BLANK-131491					
	Acetone	Blank	0.41	ug/m3	
	Benzene	Blank	<0.08	ug/m3	
	Carbon Tetrachloride	Blank	<0.16	ug/m3	
	Chloroform	Blank	<0.12	ug/m3	
	1,2-Dichloroethane	Blank	<0.10	ug/m3	
	1,4-Dichlorobenzene	Blank	<0.15	ug/m3	
	Ethyl Acetate	Blank	<0.09	ug/m3	
	Ethylbenzene	Blank	<0.11	ug/m3	
	Hexane	Blank	<0.09	ug/m3	
	Isopropanol	Blank	0.13	ug/m3	
	2-Butanone (MEK)	Blank	<0.08	ug/m3	
	4-Methyl-2-Pentanone (MIBK)	Blank	<0.10	ug/m3	
	Styrene	Blank	<0.11	ug/m3	
	Tetrachloroethylene	Blank	<0.17	ug/m3	
	Toluene	Blank	<0.10	ug/m3	
	1,1,1-Trichloroethane	Blank	<0.14	ug/m3	
	Trichloroethylene	Blank	<0.14	ug/m3	
	1,1,2-Trichloro-1,2,2-Trifluoroethane	Blank	<0.19	ug/m3	
	Trichlorofluoromethane	Blank	<0.14	ug/m3	
	o-Xylene	Blank	<0.11	ug/m3	
	m/p-Xylene	Blank	<0.22	ug/m3	
	1,2-Dichlorobenzene	Blank	<0.15	ug/m3	
	1,3-Dichlorobenzene	Blank	<0.15	ug/m3	
	1,1-Dichloroethane	Blank	<0.10	ug/m3	
	1,1-Dichloroethylene	Blank	<0.10	ug/m3	

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QC SUMMARY REPORT

SAMPLE QC: Sample Results with Duplicates
Sample Matrix Spikes and Matrix Spike Duplicates

BATCH QC: Lab fortified Blanks and Duplicates
Standard Reference Materials and Duplicates
Method Blanks

QC Batch Number: BATCH-16391

Sample Id	Analysis	QC Analysis	Values	Units	Limits
BLANK-131491					
	Ethanol	Blank	0.39	ug/m3	
	4-Ethyl Toluene	Blank	<0.13	ug/m3	
	Methyl tert-Butyl Ether (MTBE)	Blank	<0.09	ug/m3	
	t-1,2-Dichloroethylene	Blank	<0.10	ug/m3	
	Vinyl Chloride	Blank	<0.07	ug/m3	
	Methylene Chloride	Blank	0.40	ug/m3	
	Chlorobenzene	Blank	<0.12	ug/m3	
	Chloromethane	Blank	<0.05	ug/m3	
	Bromomethane	Blank	<0.10	ug/m3	
	Chloroethane	Blank	<0.07	ug/m3	
	cis-1,3-Dichloropropene	Blank	<0.11	ug/m3	
	trans-1,3-Dichloropropene	Blank	<0.11	ug/m3	
	Chlorodibromomethane	Blank	<0.22	ug/m3	
	1,1,2-Trichloroethane	Blank	<0.14	ug/m3	
	Bromoform	Blank	<0.26	ug/m3	
	1,1,2,2-Tetrachloroethane	Blank	<0.17	ug/m3	
	Hexachlorobutadiene	Blank	<0.54	ug/m3	
	1,2,4-Trichlorobenzene	Blank	<0.19	ug/m3	
	1,2,4-Trimethylbenzene	Blank	<0.13	ug/m3	
	1,3,5-Trimethylbenzene	Blank	<0.13	ug/m3	
	Cyclohexane	Blank	<0.09	ug/m3	
	cis-1,2-Dichloroethylene	Blank	<0.10	ug/m3	
	1,2-Dichloropropane	Blank	<0.12	ug/m3	
	Dichlorodifluoromethane	Blank	<0.13	ug/m3	
	Benzyl Chloride	Blank	<0.13	ug/m3	
	Carbon Disulfide	Blank	<0.08	ug/m3	
	Vinyl Acetate	Blank	<0.09	ug/m3	
	2-Hexanone	Blank	<0.10	ug/m3	
	Bromodichloromethane	Blank	<0.17	ug/m3	
	1,2-Dibromoethane	Blank	<0.19	ug/m3	
	n-Heptane	Blank	<0.10	ug/m3	
	1,2-Dichlorotetrafluoroethane (114)	Blank	<0.18	ug/m3	
	Tetrahydrofuran	Blank	<0.08	ug/m3	
	Propene	Blank	<0.05	ug/m3	
	1,3-Butadiene	Blank	<0.06	ug/m3	
LFBLANK-93731					
	Acetone	Lab Fort Blank Amt.	11.87	ug/m3	
		Lab Fort Blk. Found	10.40	ug/m3	
		Lab Fort Blk. % Rec.	87.64	%	50-150
	Benzene	Lab Fort Blank Amt.	15.95	ug/m3	
		Lab Fort Blk. Found	16.41	ug/m3	
		Lab Fort Blk. % Rec.	102.92	%	70-130
	Carbon Tetrachloride	Lab Fort Blank Amt.	31.45	ug/m3	

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Sample Matrix Spikes and Matrix Spike Duplicates

BATCH QC: Lab fortified Blanks and Duplicates
Standard Reference Materials and Duplicates
Method Blanks

QC Batch Number: BATCH-16391

Sample Id	Analysis	QC Analysis	Values	Units	Limits
LFBLANK-93731					
	Carbon Tetrachloride	Lab Fort Blk. Found	36.71	ug/m3	
		Lab Fort Blk. % Rec.	116.74	%	70-130
	Chloroform	Lab Fort Blank Amt.	24.33	ug/m3	
		Lab Fort Blk. Found	24.39	ug/m3	
		Lab Fort Blk. % Rec.	100.26	%	70-130
	1,2-Dichloroethane	Lab Fort Blank Amt.	20.24	ug/m3	
		Lab Fort Blk. Found	22.50	ug/m3	
		Lab Fort Blk. % Rec.	111.16	%	70-130
	1,4-Dichlorobenzene	Lab Fort Blank Amt.	30.06	ug/m3	
		Lab Fort Blk. Found	32.75	ug/m3	
		Lab Fort Blk. % Rec.	108.96	%	70-130
	Ethyl Acetate	Lab Fort Blank Amt.	18.01	ug/m3	
		Lab Fort Blk. Found	16.34	ug/m3	
		Lab Fort Blk. % Rec.	90.72	%	50-150
	Ethylbenzene	Lab Fort Blank Amt.	21.67	ug/m3	
		Lab Fort Blk. Found	23.48	ug/m3	
		Lab Fort Blk. % Rec.	108.34	%	70-130
	Hexane	Lab Fort Blank Amt.	17.62	ug/m3	
		Lab Fort Blk. Found	16.58	ug/m3	
		Lab Fort Blk. % Rec.	94.10	%	70-130
	Isopropanol	Lab Fort Blank Amt.	12.28	ug/m3	
		Lab Fort Blk. Found	11.65	ug/m3	
		Lab Fort Blk. % Rec.	94.88	%	50-150
	2-Butanone (MEK)	Lab Fort Blank Amt.	14.74	ug/m3	
		Lab Fort Blk. Found	13.70	ug/m3	
		Lab Fort Blk. % Rec.	92.93	%	70-130
	4-Methyl-2-Pentanone (MIBK)	Lab Fort Blank Amt.	20.48	ug/m3	
		Lab Fort Blk. Found	23.64	ug/m3	
		Lab Fort Blk. % Rec.	115.42	%	70-130
	Styrene	Lab Fort Blank Amt.	21.26	ug/m3	
		Lab Fort Blk. Found	22.44	ug/m3	
		Lab Fort Blk. % Rec.	105.54	%	70-130
	Tetrachloroethylene	Lab Fort Blank Amt.	33.90	ug/m3	
		Lab Fort Blk. Found	31.45	ug/m3	
		Lab Fort Blk. % Rec.	92.75	%	70-130
	Toluene	Lab Fort Blank Amt.	18.81	ug/m3	
		Lab Fort Blk. Found	18.06	ug/m3	
		Lab Fort Blk. % Rec.	96.00	%	70-130
	1,1,1-Trichloroethane	Lab Fort Blank Amt.	27.28	ug/m3	
		Lab Fort Blk. Found	30.94	ug/m3	
		Lab Fort Blk. % Rec.	113.42	%	70-130
	Trichloroethylene	Lab Fort Blank Amt.	26.87	ug/m3	
		Lab Fort Blk. Found	28.63	ug/m3	

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QC SUMMARY REPORT

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Sample Matrix Spikes and Matrix Spike Duplicates

BATCH QC: Lab fortified Blanks and Duplicates
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Method Blanks

QC Batch Number: BATCH-16391

Sample Id	Analysis	QC Analysis	Values	Units	Limits
LFBLANK-93731					
	Trichloroethylene	Lab Fort Blk. % Rec.	106.56	%	70-130
	1,1,2-Trichloro-1,2,2-Trifluoroethane	Lab Fort Blank Amt.	38.31	ug/m3	
		Lab Fort Blk. Found	36.01	ug/m3	
		Lab Fort Blk. % Rec.	93.97	%	70-130
	Trichlorofluoromethane	Lab Fort Blank Amt.	28.09	ug/m3	
		Lab Fort Blk. Found	23.35	ug/m3	
		Lab Fort Blk. % Rec.	83.14	%	70-130
	o-Xylene	Lab Fort Blank Amt.	21.71	ug/m3	
		Lab Fort Blk. Found	24.75	ug/m3	
		Lab Fort Blk. % Rec.	113.98	%	70-130
	m/p-Xylene	Lab Fort Blank Amt.	43.43	ug/m3	
		Lab Fort Blk. Found	49.86	ug/m3	
		Lab Fort Blk. % Rec.	114.81	%	70-130
	1,2-Dichlorobenzene	Lab Fort Blank Amt.	30.06	ug/m3	
		Lab Fort Blk. Found	32.17	ug/m3	
		Lab Fort Blk. % Rec.	107.02	%	70-130
	1,3-Dichlorobenzene	Lab Fort Blank Amt.	30.06	ug/m3	
		Lab Fort Blk. Found	32.22	ug/m3	
		Lab Fort Blk. % Rec.	107.20	%	70-130
	1,1-Dichloroethane	Lab Fort Blank Amt.	20.24	ug/m3	
		Lab Fort Blk. Found	19.88	ug/m3	
		Lab Fort Blk. % Rec.	98.20	%	70-130
	1,1-Dichloroethylene	Lab Fort Blank Amt.	19.83	ug/m3	
		Lab Fort Blk. Found	19.59	ug/m3	
		Lab Fort Blk. % Rec.	98.76	%	70-130
	Ethanol	Lab Fort Blank Amt.	9.42	ug/m3	
		Lab Fort Blk. Found	8.67	ug/m3	
		Lab Fort Blk. % Rec.	92.06	%	50-150
	4-Ethyl Toluene	Lab Fort Blank Amt.	24.58	ug/m3	
		Lab Fort Blk. Found	28.10	ug/m3	
		Lab Fort Blk. % Rec.	114.32	%	50-150
	Methyl tert-Butyl Ether (MTBE)	Lab Fort Blank Amt.	18.02	ug/m3	
		Lab Fort Blk. Found	16.10	ug/m3	
		Lab Fort Blk. % Rec.	89.35	%	70-130
	t-1,2-Dichloroethylene	Lab Fort Blank Amt.	19.82	ug/m3	
		Lab Fort Blk. Found	19.38	ug/m3	
		Lab Fort Blk. % Rec.	97.80	%	70-130
	Vinyl Chloride	Lab Fort Blank Amt.	12.78	ug/m3	
		Lab Fort Blk. Found	10.83	ug/m3	
		Lab Fort Blk. % Rec.	84.74	%	70-130
	Methylene Chloride	Lab Fort Blank Amt.	17.36	ug/m3	
		Lab Fort Blk. Found	17.50	ug/m3	
		Lab Fort Blk. % Rec.	100.82	%	70-130

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QC SUMMARY REPORT

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Sample Matrix Spikes and Matrix Spike Duplicates

BATCH QC: Lab fortified Blanks and Duplicates
Standard Reference Materials and Duplicates
Method Blanks

Report Date: 4/8/2009 Lims Bat # : LIMT-24454

QC Batch Number: BATCH-16391

Sample Id	Analysis	QC Analysis	Values	Units	Limits
LFBLANK-93731					
	Chlorobenzene	Lab Fort Blank Amt.	23.02	ug/m3	
		Lab Fort Blk. Found	24.20	ug/m3	
		Lab Fort Blk. % Rec.	105.10	%	70-130
	Chloromethane	Lab Fort Blank Amt.	10.32	ug/m3	
		Lab Fort Blk. Found	9.11	ug/m3	
		Lab Fort Blk. % Rec.	88.30	%	70-130
	Bromomethane	Lab Fort Blank Amt.	19.40	ug/m3	
		Lab Fort Blk. Found	12.61	ug/m3	
		Lab Fort Blk. % Rec.	64.97	%	70-130
	Chloroethane	Lab Fort Blank Amt.	13.19	ug/m3	
		Lab Fort Blk. Found	11.18	ug/m3	
		Lab Fort Blk. % Rec.	84.79	%	70-130
	cis-1,3-Dichloropropene	Lab Fort Blank Amt.	22.69	ug/m3	
		Lab Fort Blk. Found	23.97	ug/m3	
		Lab Fort Blk. % Rec.	105.62	%	70-130
	trans-1,3-Dichloropropene	Lab Fort Blank Amt.	22.69	ug/m3	
		Lab Fort Blk. Found	25.19	ug/m3	
		Lab Fort Blk. % Rec.	111.00	%	70-130
	Chlorodibromomethane	Lab Fort Blank Amt.	42.59	ug/m3	
		Lab Fort Blk. Found	49.41	ug/m3	
		Lab Fort Blk. % Rec.	116.00	%	70-130
	1,1,2-Trichloroethane	Lab Fort Blank Amt.	27.28	ug/m3	
		Lab Fort Blk. Found	28.33	ug/m3	
		Lab Fort Blk. % Rec.	103.86	%	70-130
	Bromoform	Lab Fort Blank Amt.	51.69	ug/m3	
		Lab Fort Blk. Found	62.70	ug/m3	
		Lab Fort Blk. % Rec.	121.30	%	70-130
	1,1,2,2-Tetrachloroethane	Lab Fort Blank Amt.	34.33	ug/m3	
		Lab Fort Blk. Found	40.18	ug/m3	
		Lab Fort Blk. % Rec.	117.04	%	70-130
	Hexachlorobutadiene	Lab Fort Blank Amt.	53.33	ug/m3	
		Lab Fort Blk. Found	47.13	ug/m3	
		Lab Fort Blk. % Rec.	88.37	%	70-130
	1,2,4-Trichlorobenzene	Lab Fort Blank Amt.	37.10	ug/m3	
		Lab Fort Blk. Found	34.13	ug/m3	
		Lab Fort Blk. % Rec.	91.97	%	70-130
	1,2,4-Trimethylbenzene	Lab Fort Blank Amt.	24.58	ug/m3	
		Lab Fort Blk. Found	27.91	ug/m3	
		Lab Fort Blk. % Rec.	113.56	%	70-130
	1,3,5-Trimethylbenzene	Lab Fort Blank Amt.	24.58	ug/m3	
		Lab Fort Blk. Found	28.40	ug/m3	
		Lab Fort Blk. % Rec.	115.56	%	70-130
	Cyclohexane	Lab Fort Blank Amt.	17.21	ug/m3	

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Sample Matrix Spikes and Matrix Spike Duplicates

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Report Date: 4/8/2009 Lims Bat # : LIMT-24454

QC Batch Number: BATCH-16391

Sample Id	Analysis	QC Analysis	Values	Units	Limits
LFBLANK-93731					
	Cyclohexane	Lab Fort Blk. Found	16.65	ug/m3	
		Lab Fort Blk. % Rec.	96.76	%	50-150
	cis-1,2-Dichloroethylene	Lab Fort Blank Amt.	19.82	ug/m3	
		Lab Fort Blk. Found	19.72	ug/m3	
		Lab Fort Blk. % Rec.	99.50	%	70-130
	1,2-Dichloropropane	Lab Fort Blank Amt.	23.10	ug/m3	
		Lab Fort Blk. Found	26.67	ug/m3	
		Lab Fort Blk. % Rec.	115.44	%	70-130
	Dichlorodifluoromethane	Lab Fort Blank Amt.	24.72	ug/m3	
		Lab Fort Blk. Found	22.84	ug/m3	
		Lab Fort Blk. % Rec.	92.37	%	70-130
	Benzyl Chloride	Lab Fort Blank Amt.	25.88	ug/m3	
		Lab Fort Blk. Found	28.97	ug/m3	
		Lab Fort Blk. % Rec.	111.94	%	70-130
	Carbon Disulfide	Lab Fort Blank Amt.	15.57	ug/m3	
		Lab Fort Blk. Found	13.82	ug/m3	
		Lab Fort Blk. % Rec.	88.81	%	70-130
	Vinyl Acetate	Lab Fort Blank Amt.	17.60	ug/m3	
		Lab Fort Blk. Found	16.62	ug/m3	
		Lab Fort Blk. % Rec.	94.42	%	70-130
	2-Hexanone	Lab Fort Blank Amt.	20.48	ug/m3	
		Lab Fort Blk. Found	23.56	ug/m3	
		Lab Fort Blk. % Rec.	115.06	%	50-150
	Bromodichloromethane	Lab Fort Blank Amt.	33.50	ug/m3	
		Lab Fort Blk. Found	41.00	ug/m3	
		Lab Fort Blk. % Rec.	122.38	%	70-130
	1,2-Dibromoethane	Lab Fort Blank Amt.	38.42	ug/m3	
		Lab Fort Blk. Found	39.96	ug/m3	
		Lab Fort Blk. % Rec.	104.00	%	70-130
	n-Heptane	Lab Fort Blank Amt.	20.49	ug/m3	
		Lab Fort Blk. Found	22.38	ug/m3	
		Lab Fort Blk. % Rec.	109.22	%	50-150
	1,2-Dichlorotetrafluoroethane (114)	Lab Fort Blank Amt.	34.95	ug/m3	
		Lab Fort Blk. Found	26.27	ug/m3	
		Lab Fort Blk. % Rec.	75.18	%	70-130
	Tetrahydrofuran	Lab Fort Blank Amt.	14.74	ug/m3	
		Lab Fort Blk. Found	14.50	ug/m3	
		Lab Fort Blk. % Rec.	98.36	%	50-150
	Propene	Lab Fort Blank Amt.	8.60	ug/m3	
		Lab Fort Blk. Found	9.40	ug/m3	
		Lab Fort Blk. % Rec.	109.30	%	50-150
	1,3-Butadiene	Lab Fort Blank Amt.	11.06	ug/m3	
		Lab Fort Blk. Found	9.32	ug/m3	

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QC SUMMARY REPORT

SAMPLE QC: Sample Results with Duplicates
Sample Matrix Spikes and Matrix Spike Duplicates

BATCH QC: Lab fortified Blanks and Duplicates
Standard Reference Materials and Duplicates
Method Blanks

Report Date: 4/8/2009 Lims Bat # : LIMT-24454

QC Batch Number: BATCH-16391

Sample Id	Analysis	QC Analysis	Values	Units	Limits
LFBLANK-93731					
	1,3-Butadiene	Lab Fort Blk. % Rec.	84.26	%	70-130

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QC SUMMARY REPORT

SAMPLE QC: Sample Results with Duplicates
Sample Matrix Spikes and Matrix Spike Duplicates

BATCH QC: Lab fortified Blanks and Duplicates
Standard Reference Materials and Duplicates
Method Blanks

NOTES:

QC Batch No. : BATCH-16391
Sample ID : LFBLANK-93731
Analysis : Bromomethane

LABORATORY FORTIFIED BLANK RECOVERY OUTSIDE OF CONTROL LIMITS. ANY REPORTED RESULT FOR THIS COMPOUND IN THIS BATCH IS LIKELY TO BE BIASED ON THE LOW SIDE.

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QC SUMMARY REPORT

SAMPLE QC: Sample Results with Duplicates
Sample Matrix Spikes and Matrix Spike Duplicates

BATCH QC: Lab fortified Blanks and Duplicates
Standard Reference Materials and Duplicates
Method Blanks

QUALITY CONTROL DEFINITIONS AND ABBREVIATIONS

QC BATCH NUMBER	This is the number assigned to all samples analyzed together that would be subject to comparison with a particular set of Quality Control Data.
LIMITS	Upper and Lower Control Limits for the QC ANALYSIS Reported. All values normally would fall within these statistically determined limits, unless there is an unusual circumstance that would be documented in a NOTE appearing on the last page of the QC SUMMARY REPORT. Not all QC results will have Limits defined.
Sample Amount	Amount of analyte found in a sample.
Blank	Method Blank that has been taken though all the steps of the analysis.
LFBLANK	Laboratory Fortified Blank (a control sample)
STDADD	Standard Added (a laboratory control sample)
Matrix Spk Amt Added	Amount of analyte spiked into a sample
MS Amt Measured	Amount of analyte found including amount that was spiked
Matrix Spike % Rec.	% Recovery of spiked amount in sample.
Duplicate Value	The result from the Duplicate analysis of the sample.
Duplicate RPD	The Relative Percent Difference between two Duplicate Analyses.
Surrogate Recovery	The % Recovery for non-environmental compounds (surrogates) spiked into samples to determine the performance of the analytical methods.
Sur. Recovery (ELCD)	Surrogate Recovery on the Electrolytic Conductivity Detector.
Sur. Recovery (PID)	Surrogate Recovery on the Photoionization Detector.
Standard Measured	Amount measured for a laboratory control sample
Standard Amt Added	Known value for a laboratory control sample
Standard % Recovery	% recovered for a laboratory control sample with a known value.
Lab Fort Blank Amt	Laboratory Fortified Blank Amount Added
Lab Fort Blk. Found	Laboratory Fortified Blank Amount Found
Lab Fort Blk % Rec	Laboratory Fortified Blank % Recovered
Dup Lab Fort Bl Amt	Duplicate Laboratory Fortified Blank Amount Added
Dup Lab Fort Bl Fnd	Duplicate Laboratory Fortified Blank Amount Found
Dup Lab Fort Bl % Rec	Duplicate Laboratory Fortified Blank % Recovery
Lab Fort Blank Range	Laboratory Fortified Blank Range (Absolute value of difference between recoveries for Lab Fortified Blank and Lab Fortified Blank Duplicate).
Lab Fort Bl. Av. Rec.	Laboratory Fortified Blank Average Recovery
Duplicate Sample Amt	Sample Value for Duplicate used with Matrix Spike Duplicate
MSD Amount Added	Matrix Spike Duplicate Amount Added (Spiked)
MSD Amt Measured	Matrix Spike Duplicate Amount Measured
MSD % Recovery	Matrix Spike Duplicate % Recovery
MSD Range	Absolute difference between Matrix Spike and Matrix Spike Duplicate Recoveries

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RESULTS FOR METHOD 3C

Lab ID Number: 09B10367
Client ID Number: OA-1

LIMS Number: 24454
Analyst: XC
Date Analyzed: 4/7/09

Analyte:	Sample Results %	RL %
Nitrogen	80.5	15.6
Oxygen	23.1	4.2

Gases sample analyzed by GC/TCD, method 3C(modified).
ND = Not Detected
RL=Reporting Limit

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RESULTS FOR METHOD 3C

Lab ID Number: 09B10367
Client ID Number: OA-1

LIMS Number: 24454
Analyst: XC
Date Analyzed: 4/6/09

Analyte:	Sample Results PPMV	RL PPMV
Methane	ND	16
Carbon Dioxide	371	20
Carbon Monoxide	ND	23100

Gases sample analyzed by GC/TCD, method 3C(modified).
ND = Not Detected
RL=Reporting Limit

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RESULTS FOR METHOD 3C

Lab ID Number: 09B10368
Client ID Number: IA-1

LIMS Number: 24454
Analyst: XC
Date Analyzed: 4/7/09

Analyte:	Sample Results %	RL %
Nitrogen	79.8	15.6
Oxygen	22.9	4.2

Gases sample analyzed by GC/TCD, method 3C(modified).
ND = Not Detected
RL=Reporting Limit

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RESULTS FOR METHOD 3C

Lab ID Number: 09B10368
Client ID Number: IA-1

LIMS Number: 24454
Analyst: XC
Date Analyzed: 4/6/09

Analyte:	Sample Results PPMV	RL PPMV
Methane	ND	16
Carbon Dioxide	393	20
Carbon Monoxide	ND	22900

Gases sample analyzed by GC/TCD, method 3C(modified).
ND = Not Detected
RL=Reporting Limit

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RESULTS FOR METHOD 3C

Lab ID Number: 09B10369
Client ID Number: IA-1 DUP

LIMS Number: 24454
Analyst: XC
Date Analyzed: 4/7/09

Analyte:	Sample Results %	RL %
Nitrogen	79.8	15.6
Oxygen	23.0	4.2

Gases sample analyzed by GC/TCD, method 3C(modified).
ND = Not Detected
RL=Reporting Limit

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RESULTS FOR METHOD 3C

Lab ID Number: 09B10369
Client ID Number: IA-1 DUP

LIMS Number: 24454
Analyst: XC
Date Analyzed: 4/6/09

Analyte:	Sample Results PPMV	RL PPMV
Methane	ND	16
Carbon Dioxide	404	20
Carbon Monoxide	ND	23000

Gases sample analyzed by GC/TCD, method 3C(modified).
ND = Not Detected
RL=Reporting Limit

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RESULTS FOR METHOD 3C

Lab ID Number: 09B10370
Client ID Number: IA2

LIMS Number: 24454
Analyst: XC
Date Analyzed: 4/7/09

Analyte:	Sample Results %	RL %
Nitrogen	80.0	15.6
Oxygen	23.5	4.2

Gases sample analyzed by GC/TCD, method 3C(modified).
ND = Not Detected
RL=Reporting Limit

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RESULTS FOR METHOD 3C

Lab ID Number: 09B10370
Client ID Number: IA2

LIMS Number: 24454
Analyst: XC
Date Analyzed: 4/6/09

Analyte:	Sample Results PPMV	RL PPMV
Methane	ND	16
Carbon Dioxide	401	20
Carbon Monoxide	ND	23500

Gases sample analyzed by GC/TCD, method 3C(modified).
ND = Not Detected
RL=Reporting Limit

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RESULTS FOR METHOD 3C

Lab ID Number: 09B10371
Client ID Number: SS1

LIMS Number: 24454
Analyst: XC
Date Analyzed: 4/7/09

Analyte:	Sample Results %	RL %
Nitrogen	78.8	15.6
Oxygen	22.2	4.2

Gases sample analyzed by GC/TCD, method 3C(modified).
ND = Not Detected
RL=Reporting Limit

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RESULTS FOR METHOD 3C

Lab ID Number: 09B10371
Client ID Number: SS1

LIMS Number: 24454
Analyst: XC
Date Analyzed: 4/6/09

Analyte:	Sample Results PPMV	RL PPMV
Methane	ND	16
Carbon Dioxide	145	20
Carbon Monoxide	ND	22200

Gases sample analyzed by GC/TCD, method 3C(modified).
ND = Not Detected
RL=Reporting Limit

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RESULTS FOR METHOD 3C

Lab ID Number: 09B10372
Client ID Number: SS2

LIMS Number: 24454
Analyst: XC
Date Analyzed: 4/7/09

Analyte:	Sample Results %	RL %
Nitrogen	79.4	15.6
Oxygen	22.5	4.2

Gases sample analyzed by GC/TCD, method 3C(modified).
ND = Not Detected
RL=Reporting Limit

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RESULTS FOR METHOD 3C

Lab ID Number: 09B10372
Client ID Number: SS2

LIMS Number: 24454
Analyst: XC
Date Analyzed: 4/6/09

Analyte:	Sample Results PPMV	RL PPMV
Methane	ND	16
Carbon Dioxide	475	20
Carbon Monoxide	ND	22500

Gases sample analyzed by GC/TCD, method 3C(modified).
ND = Not Detected
RL=Reporting Limit

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RESULTS FOR METHOD 3C

Lab ID Number: 09B10373
Client ID Number: SS3

LIMS Number: 24454
Analyst: XC
Date Analyzed: 4/7/09

Analyte:	Sample Results %	RL %
Nitrogen	78.7	15.6
Oxygen	21.8	4.2

Gases sample analyzed by GC/TCD, method 3C(modified).
ND = Not Detected
RL=Reporting Limit

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RESULTS FOR METHOD 3C

Lab ID Number: 09B10373
Client ID Number: SS3

LIMS Number: 24454
Analyst: XC
Date Analyzed: 4/7/09

Analyte:	Sample Results PPMV	RL PPMV
Methane	ND	16
Carbon Dioxide	208	20
Carbon Monoxide	ND	21800

Gases sample analyzed by GC/TCD, method 3C(modified).
ND = Not Detected
RL=Reporting Limit

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RESULTS FOR METHOD 3C

Lab ID Number: 09B10374
Client ID Number: SS4

LIMS Number: 24454
Analyst: XC
Date Analyzed: 4/7/09

Analyte:	Sample Results %	RL %
Nitrogen	78.0	15.6
Oxygen	22.3	4.2

Gases sample analyzed by GC/TCD, method 3C(modified).
ND = Not Detected
RL=Reporting Limit

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RESULTS FOR METHOD 3C

Lab ID Number: 09B10374
Client ID Number: SS4

LIMS Number: 24454
Analyst: XC
Date Analyzed: 4/7/09

Analyte:	Sample Results PPMV	RL PPMV
Methane	ND	16
Carbon Dioxide	28.6	20
Carbon Monoxide	ND	22300

Gases sample analyzed by GC/TCD, method 3C(modified).
ND = Not Detected
RL=Reporting Limit

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RESULTS FOR METHOD 3C

Lab ID Number: 09B10375
Client ID Number: OA2

LIMS Number: 24454
Analyst: XC
Date Analyzed: 4/7/09

Analyte:	Sample Results %	RL %
Nitrogen	79.9	15.6
Oxygen	22.5	4.2

Gases sample analyzed by GC/TCD, method 3C(modified).
ND = Not Detected
RL=Reporting Limit

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RESULTS FOR METHOD 3C

Lab ID Number: 09B10375
Client ID Number: OA-2

LIMS Number: 24454
Analyst: XC
Date Analyzed: 4/7/09

Analyte:	Sample Results PPMV	RL PPMV
Methane	ND	16
Carbon Dioxide	389	20
Carbon Monoxide	ND	22500

Gases sample analyzed by GC/TCD, method 3C(modified).
ND = Not Detected
RL=Reporting Limit

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AIR SAMPLE CHAIN OF CUSTODY RECORD

Page 1 of 1

LMT-24454

Company Name: AECOM
Address: 11425 W. Lake Park Dr.
Milwaukee, WI 53224
Attention: Steve Korander
Project Location: Greenbrook School
Sampled By: Retzlaff

Telephone: (847) 279-2448 Steve Korander
Project # 13069-002/2500
Client PO # —

DATA DELIVERY (check one):
☐FAX ☒EMAIL ☐WEBSITE CLIENT
Fax # :
Email: steve.korander@aecom.com
Format: ☐ EXCEL ☒PDF ☐ GIS KEY ☐ OTHER

Proposal Provided? (For Billing purposes)
☐ yes _____ proposal date

Field ID	Sample Description	Media	Lab #	Date Sampled Start Date Time	Date Sampled Stop Date Time	ONLY USE WHEN USING PUMPS Total Minutes Sampled	Flow Rate M³/Min. or L / Min.	Volume Liters or M³	Matrix Code*	ANALYSIS REQUESTED TO-15	ANALYSIS REQUESTED 3C	" Hg Initial pressure	" Hg Final pressure	Lab Receipt Pressure	Summa Canister ID	Flow Controller ID
OA1	8-hr Air	S	0903 10367	4/1 14:48	4/1 22:46	~~7:58~~			AMB	X	X	-27.5	-3		1471	3338
IA1	8-hr Air	S	68	4/1 14:30	4/1 22:09				IA	|	|	-30	-9		1298	3276
IA1-Dup	8-hr Air	S	69	4/1 15:26	4/1 22:09				IA	|	|	-29	-4		1747	3241
IA2	|	S	70	4/1 14:30	4/1 22:34				IA	|	|	-26	-5		1235	3342

Please fill out completely, sign, date and retain the yellow copy for your record.

Summa canisters and flow controllers must be returned within 14 days of receipt or rental fees will apply.

Summa canisters will be retained for a minimum of 14 days after sampling date prior to cleaning.

Laboratory Comments:

CLIENT COMMENTS:
48-hr turnaround

Relinquished by: (signature)	Date/Time:
Received by: (signature)	Date/Time:
Relinquished by: (signature)	Date/Time:
Received by: (signature)	Date/Time:

Turnaround **
☐ 7-Day
☐ 10-Day
☐ Other ___
RUSH *
☐ *24-Hr ☐ *48-Hr
☐ *72-Hr ☐ *4-Day
*Approval Required

Special Requirements
Regulations:
Data Enhancement/RCP? ☐ Y ☐ N
Enhanced Data Package ☐ Y ☐ N
(Surchage Applies)
Required Detection Limits:
Other:

*Matrix Code:
SG= SOIL GAS
IA= INDOOR AIR
AMB=AMBIENT
SS = SUB SLAB
D = DUP
BL = BLANK
O = other

**Media Codes:
S=summa can
TB=tedlar bag
P=PUF
T=tube
F= filter
C=cassette
O = Other

** TURNAROUND TIME STARTS AT 9:00 A.M. THE DAY AFTER SAMPLE RECEIPT UNLESS THERE QUESTIONS ON YOUR CHAIN. IF THIS FORM IS NOT FILLED OUT COMPLETE OR IS INCORRECT NAROUND TIME WILL NOT START UNTIL ALL QUESTIONS ARE ANSWERED B R CLIENT.

AIHA, NELAC & WBE/DE ertified

(1)

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AIR SAMPLE CHAIN OF CUSTODY RECORD

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Page 1 of 1

Steve Korndel LSAT-24454

Company Name: AECOM
Address: 11425 W. Lake Park Dr
Milwaukee WI 53224
Attention: Steve Korndel
Project Location: Greenbrook School
Sampled By: Retzlaff

Telephone: (847) 279-2448
Project # 13069-002/2500
Client PO #

DATA DELIVERY (check one):
☐FAX ☒EMAIL ☐WEBSITE CLIENT
Fax #:
Email: steve.korndel@aecom.com
Formal: ☐ EXCEL ☒ PDF ☐ GIS KEY ☐ OTHER

Proposal Provided? (For Billing purposes)
☐ yes _____ proposal date

Field ID	Sample Description	Media	Lab #	Date Sampled Start Date Time	Date Sampled Stop Date Time	ONLY USE WHEN USING PUMPS: Total Minutes Sampled	Flow Rate M³/Min. or L/Min.	Volume Liters or M³	Matrix Code*	ANALYSIS REQUESTED: TO-15	3C	" Hg Initial pressure	" Hg Final Pressure	Lab Receipt pressure	Summa Canister ID	Flow Controller ID
SS1	8-hr Sub Slab	S	09B10371	4/1 14:41	4/1 22:27				SS	X	X	-22	-6		1617	3281
SS2			72	4/1 14:30	4/1 22:01							-30	-9		1245	3246
SS3			73	4/1 14:35	4/1 22:17							-30	-9		1318	3340
SS4			74	4/1 14:37	4/1 22:36							-30	-7		1164	3239

Please fill out completely, sign, date and retain the yellow copy for your record.
Summa canisters and flow controllers must be returned within 14 days of receipt or rental fees will apply.
Summa canisters will be retained for a minimum of 14 days after sampling date prior to cleaning.

Laboratory Comments:

CLIENT COMMENTS:
48-hr turnaround

Relinquished by: (signature) — Date/Time: 4/2/09 12:00
Received by: (signature) — Date/Time: 4/02/09 0949
Relinquished by: (signature) — Date/Time:
Received by: (signature) — Date/Time:

Turnaround **
☐ 7-Day
☐ 10-Day
☐ Other ___
RUSH *
☐ *24-Hr ☐ *48-Hr
☐ *4-Day
*Approval Required

Special Requirements
Regulations:
Data Enhancement/RCP? ☐ Y ☐ N
Enhanced Data Package ☐ Y ☐ N
(Surchage Applies)
Required Detection Limits:
Other:

*Matrix Code:
SG= SOIL GAS
IA= INDOOR AIR
AMB=AMBIENT
SS = SUB SLAB
D = DUP
BL = BLANK
O = other

**Media Codes:
S=summa can
TB=tedlar bag
P=PUF
T=tube
F= filter
C=cassette
O = Other

** TURNAROUND TIME STARTS AT 9:00 A.M. THE DAY AFTER SAMPLE RECEIPT UNLESS THERE ARE QUESTIONS ON YOUR CHAIN. IF THIS FORM IS NOT FILLED OUT COMPLETELY OR IS INCORRECT, TURNAROUND TIME WILL NOT START UNTIL ALL QUESTIONS ARE ANSWERED BY OUR CLIENT.

AIHA, NELAC & WBE/DBE Certified

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Email: info@contestlabs.com
www.contestlabs.com
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EAST LONGMEADOW, MA 01028

AIR SAMPLE CHAIN OF CUSTODY RECORD

LDMT-24454

Company Name: AECOM
Address: 11425 W. Lake Park Dr
Milwaukee WI 53224
Attention: Steve Korndr
Project Location: Greenbrook School
Sampled By: Retzlaff

Telephone: (847) 279-2448
Project # 13069-002/2500
Client PO # _____

Steve Korndr

DATA DELIVERY (check one):
☐FAX ☒EMAIL ☐WEBSITE CLIENT
Fax # : _____
Email: steve.korndr@aecom.com
Format: ☐ EXCEL ☒PDF ☐ GIS KEY ☐ OTHER___

Proposal Provided? (For Billing purposes)
☐ yes _____ proposal date

Field ID	Sample Description	Media	Lab #	Date Sampled Start Date Time	Date Sampled Stop Date Time	ONLY USE WHEN USING PUMPS Total Minutes Sampled	Flow Rate M^3/Min. or L / Min.	Volume Liters or M^3	Matrix Code*	ANALYSIS REQUESTED TO-15	ANALYSIS REQUESTED 3C	" Hg Initial pressure	" Hg Final pressure	" Hg Lab Receipt pressure	Summa Canister ID	Flow Controller ID
OA2	8-hr Air	S	0981037 5	4/1 14:58	4/1 22:57				AMB	X	X	-30	-3		1137	3284

Please fill out completely, sign, date and retain the yellow copy for your record.
Summa canisters and flow controllers must be returned within 14 days of receipt or rental fees will apply.
Summa canisters will be retained for a minimum of 14 days after sampling date prior to cleaning.

Laboratory Comments:

CLIENT COMMENTS:
48-Hr Turnaround

Relinquished by: (signature) _____ Date/Time: 4/3/09 12:00
Received by: (signature) _____ Date/Time: _____
Relinquished by: (signature) _____ Date/Time: _____
Received by: (signature) _____ Date/Time: _____

Turnaround **
☐ 7-Day
☐ 10-Day
☐ Other ___
RUSH *
☐ *24-Hr ☐ *48-Hr
~~☐ *72-Hr~~ ☐ *4-Day
*Approval Required

Special Requirements
Regulations: _____
Data Enhancement/RCP? ☐ Y ☐ N
Enhanced Data Package ☐ Y ☐ N
(Surchage Applies)
Required Detection Limits: _____
Other: _____

*Matrix Code:
SG= SOIL GAS
IA= INDOOR AIR
AMB=AMBIENT
SS = SUB SLAB
D = DUP
BL = BLANK
O = other_____

**Media Codes:
S=summa can
TB=tedlar bag
P=PUF
T=tube
F= filter
C=cassette
O = Other_____

** TURNAR TIME STARTS AT 9:00 A.M. THE DAY AFTER SAMPLE RECEIPT UNLESS THE E QUESTIONS ON YOUR CHAIN. IF THIS FORM IS NOT FILLED OUT COMPLE OR IS INCORREC , RNAROUND TIME WILL NOT START UNTIL ALL QUESTIONS ARE ANSWERED B. UR CLIENT.

AIHA, NELAC & WBE/DBE Certified

United States

My UPS Shipping Tracking Freight Locations Support Bu

Tracking

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Integrate Tracking Tools
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Search Support

Enter a keyword:

Search

Track Shipments

Track Packages & Freight Quantum View Flex Global View

Tracking Summary

Printer Friendl

Tracking Number:	1Z W62 417 01 9914 469 6
	View package progress
Type:	Package
Status:	Delivered
Delivered On:	04/03/2009 9:49 A.M.
Delivered To:	EAST LONGMEADOW, MA, US
Signed By:	MURPHY
Service:	NEXT DAY AIR

Tracking results provided by UPS: 04/03/2009 10:49 A.M. ET

Printer Friendly

NOTICE: UPS authorizes you to use UPS tracking systems solely to track shipme tendered by or for you to UPS for delivery and for no other purpose. Any other us tracking systems and information is strictly prohibited.

con-test ANALYTICAL LABORATORY

www.contestlabs.com

39 Spruce Street
East Longmeadow, MA
Phone: 1-413-525-2332
Fax: 1-413-525-6405

AIR ONLY RECEIPT CHECKLIST

CLIENT NAME: STS - AECOM

RECEIVED BY: KM DATE: 04/03/09

1. Was chain of custody relinquished and signed? YES NO
2. Does Chain agree with samples? YES NO

If not, explain:

3. All Samples in good condition? YES NO

If not, explain:

4. Are there any on hold samples? YES NO STORED WHERE:

5. ARE THERE ANY RUSH OR SHORT HOLDING TIME SAMPLES? WHO WAS NOTIFIED? DO DATE 04/03/09 TIME

Location where samples are stored: AIR

Permission to sub-contract samples? Yes No (circle)
(Walk in clients only) if not already approved.
Client Signature

CONTAINERS SENT TO CON-TEST	# of containers
Summa cans	9
Tedlar Bags	
Regulators	9
Restrictors	
Tubes	
Other	

1. Was all media (used & unused) checked into the WASP asset management program? Y
2. Were all returned summa cans, restrictors, & regulators documented as returned in the AIR Lab Outbound excel sheet? Y
3. Were the Lab ID's documented in the Air Lab Outbound excel sheet? Y
4. Was the job documented in the Air Lab Log-In Access Database? Y

Laboratory comments:

Appendix D-2 ML-29 Summa Results

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ANALYTICAL LABORATORY

39 Spruce Street ° East Longmeadow, MA 01028 ° FAX 413/525-6405 ° TEL. 413/525-2332

REPORT DATE 4/16/2009

AECOM ENVIRONMENT - VERNON HILLS, IL
750 CORPORATE WOODS PARKWAY
VERNON HILLS, IL 60061
ATTN: CRAIG RAWLILSON

CONTRACT NUMBER:
PURCHASE ORDER NUMBER:

PROJECT NUMBER: 13069002

ANALYTICAL SUMMARY

LIMS BAT #: LIMT-24615
JOB NUMBER: 13069002

PROJECT LOCATION: GREENBROOK SCHOOL

FIELD SAMPLE #	LAB ID	MATRIX	SAMPLE DESCRIPTION	TEST	Subcontract Lab (if any) Cert. Nos.
MC-29 RESAMPLE	09B11163	AIR	Not Specified	air special test	
MC-29 RESAMPLE	09B11163	AIR	Not Specified	to-15 ppbv	
MC-29 RESAMPLE	09B11163	AIR	Not Specified	to-15 ug/m3	

Comments :

LIMS BATCH NO. : LIMT-24615

In method TO-15, method blank-131927 contained Acetone at 0.05 ppbv = 0.14 ug/m3 and Methylene Chloride at 0.09 ppbv = 0.32 ug/m3.

The results of analyses performed are based on samples as submitted to the laboratory and relate only to the items collected and tested.

The CON-TEST Environmental Laboratory operates under the following certifications and accreditations. AIHA accreditations only apply to NIOSH methods and Environmental Lead Analyses.

AIHA 100033	AIHA ELLAP (LEAD) 100033	NORTH CAROLINA CERT. # 652
MASSACHUSETTS MA0100	NEW HAMPSHIRE NELAP 2516	NEW JERSEY NELAP NJ MA007 (AIR)
CONNECTICUT PH-0567	VERMONT DOH (LEAD) No. LL015036	FLORIDA DOH E871027 (AIR)
NEW YORK ELAP/NELAP 10899	RHODE ISLAND (LIC. No. 112)	

I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Edward Denson 4/16/09

SIGNATURE DATE

Tod Kopyscinski
Air Laboratory Manager

Michael Erickson
Assistant Laboratory Director

Edward Denson
Technical Director

Daren Damboragian
Organics Department Supervisor

* See end of data tabulation for notes and comments pertaining to this sample

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CRAIG RAWLILSON
AECOM ENVIRONMENT - VERNON HILLS, IL
750 CORPORATE WOODS PARKWAY
VERNON HILLS, IL 60061

4/16/2009

Purchase Order No.:

Project Number: 13069002
LIMS-BAT #: LIMT-24615
Job Number: 13069002

Project Location: GREENBROOK SCHOOL
Date Received: 4/9/2009

Field Sample # : MC-29 RESAMPLE

Sample ID : 09B11163

‡Sampled : 4/6/2009
Not Specified

Sample Matrix: AIR

Sample Medium : SUMMA

	Units	Results	RL	Method	Date Analyzed	Analyst
air specia						
SPECIAL TEST					04/16/09	XC
SEE REPORT PAGE FOR MORE INFORMATION.						
to-15 ppbv				EPA TO-15		
Acetone	PPBv	7.4	0.10		04/16/09	WSD
Benzene	PPBv	0.11	0.10		04/16/09	WSD
Benzyl Chloride	PPBv	ND	0.10		04/16/09	WSD
Bromodichloromethane	PPBv	ND	0.10		04/16/09	WSD
Bromoform	PPBv	ND	0.10		04/16/09	WSD
Bromomethane	PPBv	ND	0.10		04/16/09	WSD
1,3-Butadiene	PPBv	ND	0.10		04/16/09	WSD
2-Butanone (MEK)	PPBv	1.7	0.10		04/16/09	WSD
Carbon Disulfide	PPBv	0.73	0.10		04/16/09	WSD
Carbon Tetrachloride	PPBv	ND	0.10		04/16/09	WSD
Chlorobenzene	PPBv	ND	0.10		04/16/09	WSD
Chlorodibromomethane	PPBv	ND	0.10		04/16/09	WSD
Chloroethane	PPBv	ND	0.10		04/16/09	WSD
Chloroform	PPBv	ND	0.10		04/16/09	WSD
Chloromethane	PPBv	0.20	0.10		04/16/09	WSD
Cyclohexane	PPBv	ND	0.10		04/16/09	WSD
1,2-Dibromoethane	PPBv	ND	0.10		04/16/09	WSD
1,2-Dichlorobenzene	PPBv	ND	0.10		04/16/09	WSD
1,3-Dichlorobenzene	PPBv	ND	0.10		04/16/09	WSD
1,4-Dichlorobenzene	PPBv	0.15	0.10		04/16/09	WSD
Dichlorodifluoromethane	PPBv	ND	0.10		04/16/09	WSD
1,1-Dichloroethane	PPBv	ND	0.10		04/16/09	WSD
1,2-Dichloroethane	PPBv	ND	0.10		04/16/09	WSD
1,1-Dichloroethylene	PPBv	ND	0.10		04/16/09	WSD
cis-1,2-Dichloroethylene	PPBv	ND	0.10		04/16/09	WSD
t-1,2-Dichloroethylene	PPBv	ND	0.10		04/16/09	WSD
1,2-Dichloropropane	PPBv	ND	0.10		04/16/09	WSD
cis-1,3-Dichloropropene	PPBv	ND	0.10		04/16/09	WSD
trans-1,3-Dichloropropene	PPBv	ND	0.10		04/16/09	WSD
1,2-Dichlorotetrafluoroethane (114)	PPBv	ND	0.10		04/16/09	WSD
Ethanol	PPBv	6.5	0.10		04/16/09	WSD
Ethyl Acetate	PPBv	ND	0.20		04/16/09	WSD

RL = Reporting Limit

ND = Not Detected at or above the Reporting Limit

NM = Not Measured

* = See end of report for comments and notes applying to this sample

‡ See attached chain-of-custody record for time sampled

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CRAIG RAWLILSON
AECOM ENVIRONMENT - VERNON HILLS, IL
750 CORPORATE WOODS PARKWAY
VERNON HILLS, IL 60061

Purchase Order No.:

Project Number: 13069002
LIMS-BAT #: LIMT-24615
Job Number: 13069002

Project Location: GREENBROOK SCHOOL
Date Received: 4/9/2009

Field Sample # : MC-29 RESAMPLE

Sample ID : 09B11163

‡Sampled : 4/6/2009
Not Specified

Sample Matrix: AIR
Sample Medium : SUMMA

	Units	Results	RL	Method	Date Analyzed	Analyst
to-15 ppbv				EPA TO-15		
Ethylbenzene	PPBv	0.99	0.10		04/16/09	WSD
4-Ethyl Toluene	PPBv	0.12	0.10		04/16/09	WSD
n-Heptane	PPBv	0.23	0.10		04/16/09	WSD
Hexachlorobutadiene	PPBv	ND	0.20		04/16/09	WSD
Hexane	PPBv	0.63	0.10		04/16/09	WSD
2-Hexanone	PPBv	ND	0.10		04/16/09	WSD
Isopropanol	PPBv	0.71	0.10		04/16/09	WSD
Methyl tert-Butyl Ether (MTBE)	PPBv	ND	0.10		04/16/09	WSD
Methylene Chloride	PPBv	1.6	0.10		04/16/09	WSD
4-Methyl-2-Pentanone (MIBK)	PPBv	0.11	0.10		04/16/09	WSD
Propene	PPBv	ND	0.10		04/16/09	WSD
Styrene	PPBv	0.13	0.10		04/16/09	WSD
1,1,2,2-Tetrachloroethane	PPBv	ND	0.10		04/16/09	WSD
Tetrachloroethylene	PPBv	0.24	0.10		04/16/09	WSD
Tetrahydrofuran	PPBv	ND	0.10		04/16/09	WSD
Toluene	PPBv	0.66	0.10		04/16/09	WSD
1,2,4-Trichlorobenzene	PPBv	ND	0.10		04/16/09	WSD
1,1,1-Trichloroethane	PPBv	ND	0.10		04/16/09	WSD
1,1,2-Trichloroethane	PPBv	ND	0.10		04/16/09	WSD
Trichloroethylene	PPBv	ND	0.10		04/16/09	WSD
Trichlorofluoromethane (Freon 11)	PPBv	ND	0.10		04/16/09	WSD
1,1,2-Trichloro-1,2,2-Trifluoroethane	PPBv	ND	0.10		04/16/09	WSD
1,2,4-Trimethylbenzene	PPBv	0.33	0.10		04/16/09	WSD
1,3,5-Trimethylbenzene	PPBv	ND	0.10		04/16/09	WSD
Vinyl Acetate	PPBv	ND	0.40		04/16/09	WSD
Vinyl Chloride	PPBv	ND	0.10		04/16/09	WSD
m/p-Xylene	PPBv	3.3	0.20		04/16/09	WSD
o-Xylene	PPBv	0.78	0.10		04/16/09	WSD
to-15 ug/m				EPA TO-15		
Acetone	ug/m3	18	0.24		04/16/09	WSD
Benzene	ug/m3	0.36	0.32		04/16/09	WSD
Benzyl Chloride	ug/m3	ND	0.52		04/16/09	WSD
Bromodichloromethane	ug/m3	ND	0.66		04/16/09	WSD
Bromoform	ug/m3	ND	1.1		04/16/09	WSD
Bromomethane	ug/m3	ND	0.38		04/16/09	WSD

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CRAIG RAWLILSON
AECOM ENVIRONMENT - VERNON HILLS, IL
750 CORPORATE WOODS PARKWAY
VERNON HILLS, IL 60061

Purchase Order No.:

Project Number: 13069002
LIMS-BAT #: LIMT-24615
Job Number: 13069002

Project Location: GREENBROOK SCHOOL
Date Received: 4/9/2009

Field Sample # : MC-29 RESAMPLE

Sample ID : 09B11163

‡Sampled : 4/6/2009
Not Specified
Sample Matrix: AIR
Sample Medium : SUMMA

	Units	Results	RL	Method	Date Analyzed	Analyst
to-15 ug/m				EPA TO-15		
1,3-Butadiene	ug/m3	ND	0.22		04/16/09	WSD
2-Butanone (MEK)	ug/m3	4.9	0.30		04/16/09	WSD
Carbon Disulfide	ug/m3	2.3	0.32		04/16/09	WSD
Carbon Tetrachloride	ug/m3	ND	0.62		04/16/09	WSD
Chlorobenzene	ug/m3	ND	0.46		04/16/09	WSD
Chlorodibromomethane	ug/m3	ND	0.86		04/16/09	WSD
Chloroethane	ug/m3	ND	0.26		04/16/09	WSD
Chloroform	ug/m3	ND	0.48		04/16/09	WSD
Chloromethane	ug/m3	0.41	0.20		04/16/09	WSD
Cyclohexane	ug/m3	ND	0.34		04/16/09	WSD
1,2-Dibromoethane	ug/m3	ND	0.76		04/16/09	WSD
1,2-Dichlorobenzene	ug/m3	ND	0.60		04/16/09	WSD
1,3-Dichlorobenzene	ug/m3	ND	0.60		04/16/09	WSD
1,4-Dichlorobenzene	ug/m3	0.89	0.60		04/16/09	WSD
Dichlorodifluoromethane	ug/m3	ND	0.50		04/16/09	WSD
1,1-Dichloroethane	ug/m3	ND	0.40		04/16/09	WSD
1,2-Dichloroethane	ug/m3	ND	0.40		04/16/09	WSD
1,1-Dichloroethylene	ug/m3	ND	0.40		04/16/09	WSD
cis-1,2-Dichloroethylene	ug/m3	ND	0.40		04/16/09	WSD
t-1,2-Dichloroethylene	ug/m3	ND	0.40		04/16/09	WSD
1,2-Dichloropropane	ug/m3	ND	0.46		04/16/09	WSD
cis-1,3-Dichloropropene	ug/m3	ND	0.44		04/16/09	WSD
trans-1,3-Dichloropropene	ug/m3	ND	0.44		04/16/09	WSD
1,2-Dichlorotetrafluoroethane (114)	ug/m3	ND	0.70		04/16/09	WSD
Ethanol	ug/m3	12	0.18		04/16/09	WSD
Ethyl Acetate	ug/m3	ND	0.73		04/16/09	WSD
Ethylbenzene	ug/m3	4.3	0.44		04/16/09	WSD
4-Ethyl Toluene	ug/m3	0.58	0.50		04/16/09	WSD
n-Heptane	ug/m3	0.94	0.40		04/16/09	WSD
Hexachlorobutadiene	ug/m3	ND	2.2		04/16/09	WSD
Hexane	ug/m3	2.2	0.36		04/16/09	WSD
2-Hexanone	ug/m3	ND	0.40		04/16/09	WSD
Isopropanol	ug/m3	1.7	0.24		04/16/09	WSD
Methyl tert-Butyl Ether (MTBE)	ug/m3	ND	0.36		04/16/09	WSD
Methylene Chloride	ug/m3	5.7	0.34		04/16/09	WSD

RL = Reporting Limit

ND = Not Detected at or above the Reporting Limit

NM = Not Measured

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‡ See attached chain-of-custody record for time sampled

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CRAIG RAWLILSON
AECOM ENVIRONMENT - VERNON HILLS, IL
750 CORPORATE WOODS PARKWAY
VERNON HILLS, IL 60061

4/16/2009

Purchase Order No.:

Project Number: 13069002
LIMS-BAT #: LIMT-24615
Job Number: 13069002

Project Location: GREENBROOK SCHOOL
Date Received: 4/9/2009

Field Sample # : MC-29 RESAMPLE

Sample ID : 09B11163
‡Sampled : 4/6/2009
Not Specified
Sample Matrix: AIR
Sample Medium : SUMMA

	Units	Results	RL	Method	Date Analyzed	Analyst
to-15 ug/m				EPA TO-15		
4-Methyl-2-Pentanone (MIBK)	ug/m3	0.47	0.40		04/16/09	WSD
Propene	ug/m3	ND	0.18		04/16/09	WSD
Styrene	ug/m3	0.54	0.42		04/16/09	WSD
1,1,2,2-Tetrachloroethane	ug/m3	ND	0.68		04/16/09	WSD
Tetrachloroethylene	ug/m3	1.6	0.68		04/16/09	WSD
Tetrahydrofuran	ug/m3	ND	0.30		04/16/09	WSD
Toluene	ug/m3	2.5	0.38		04/16/09	WSD
1,2,4-Trichlorobenzene	ug/m3	ND	0.74		04/16/09	WSD
1,1,1-Trichloroethane	ug/m3	ND	0.54		04/16/09	WSD
1,1,2-Trichloroethane	ug/m3	ND	0.54		04/16/09	WSD
Trichloroethylene	ug/m3	ND	0.54		04/16/09	WSD
Trichlorofluoromethane	ug/m3	ND	0.56		04/16/09	WSD
1,1,2-Trichloro-1,2,2-Trifluoroethane	ug/m3	ND	0.76		04/16/09	WSD
1,2,4-Trimethylbenzene	ug/m3	1.6	0.50		04/16/09	WSD
1,3,5-Trimethylbenzene	ug/m3	ND	0.50		04/16/09	WSD
Vinyl Acetate	ug/m3	ND	1.5		04/16/09	WSD
Vinyl Chloride	ug/m3	ND	0.26		04/16/09	WSD
m/p-Xylene	ug/m3	14	0.86		04/16/09	WSD
o-Xylene	ug/m3	3.4	0.44		04/16/09	WSD

RL = Reporting Limit

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NM = Not Measured

* = See end of report for comments and notes applying to this sample

‡ See attached chain-of-custody record for time sampled

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CRAIG RAWLILSON
AECOM ENVIRONMENT - VERNON HILLS, IL
750 CORPORATE WOODS PARKWAY
VERNON HILLS, IL 60061

Purchase Order No.:

Project Number: 13069002
LIMS-BAT #: LIMT-24615
Job Number: 13069002

Project Location: GREENBROOK SCHOOL
Date Received: 4/9/2009

** END OF REPORT **

RL = Reporting Limit

ND = Not Detected at or above the Reporting Limit

NM = Not Measured

* = See end of report for comments and notes applying to this sample

‡ See attached chain-of-custody record for time sampled

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QC SUMMARY REPORT

SAMPLE QC: Sample Results with Duplicates
Sample Matrix Spikes and Matrix Spike Duplicates

BATCH QC: Lab fortified Blanks and Duplicates
Standard Reference Materials and Duplicates
Method Blanks

Report Date: 4/16/2009 Lims Bat # : LIMT-24615

QC Batch Number: BATCH-16460

Sample Id	Analysis	QC Analysis	Values	Units	Limits
09B11163					
	4-Bromofluorobenzene	Surrogate Recovery	89.62	%	70-130
BLANK-131927					
	Acetone	Blank	0.14	ug/m3	
	Benzene	Blank	<0.07	ug/m3	
	Carbon Tetrachloride	Blank	<0.13	ug/m3	
	Chloroform	Blank	<0.10	ug/m3	
	1,2-Dichloroethane	Blank	<0.08	ug/m3	
	1,4-Dichlorobenzene	Blank	<0.12	ug/m3	
	Ethyl Acetate	Blank	<0.15	ug/m3	
	Ethylbenzene	Blank	<0.09	ug/m3	
	Hexane	Blank	<0.08	ug/m3	
	Isopropanol	Blank	<0.10	ug/m3	
	2-Butanone (MEK)	Blank	<0.06	ug/m3	
	4-Methyl-2-Pentanone (MIBK)	Blank	<0.08	ug/m3	
	Styrene	Blank	<0.09	ug/m3	
	Tetrachloroethylene	Blank	<0.14	ug/m3	
	Toluene	Blank	<0.08	ug/m3	
	1,1,1-Trichloroethane	Blank	<0.11	ug/m3	
	Trichloroethylene	Blank	<0.11	ug/m3	
	1,1,2-Trichloro-1,2,2-Trifluoroethane	Blank	<0.16	ug/m3	
	Trichlorofluoromethane	Blank	<0.12	ug/m3	
	o-Xylene	Blank	<0.09	ug/m3	
	m/p-Xylene	Blank	<0.18	ug/m3	
	1,2-Dichlorobenzene	Blank	<0.12	ug/m3	
	1,3-Dichlorobenzene	Blank	<0.12	ug/m3	
	1,1-Dichloroethane	Blank	<0.08	ug/m3	
	1,1-Dichloroethylene	Blank	<0.08	ug/m3	
	Ethanol	Blank	<0.08	ug/m3	
	4-Ethyl Toluene	Blank	<0.10	ug/m3	
	Methyl tert-Butyl Ether (MTBE)	Blank	<0.08	ug/m3	
	t-1,2-Dichloroethylene	Blank	<0.08	ug/m3	
	Vinyl Chloride	Blank	<0.06	ug/m3	
	Methylene Chloride	Blank	0.32	ug/m3	
	Chlorobenzene	Blank	<0.10	ug/m3	
	Chloromethane	Blank	<0.04	ug/m3	
	Bromomethane	Blank	<0.08	ug/m3	
	Chloroethane	Blank	<0.06	ug/m3	
	cis-1,3-Dichloropropene	Blank	<0.09	ug/m3	
	trans-1,3-Dichloropropene	Blank	<0.09	ug/m3	
	Chlorodibromomethane	Blank	<0.18	ug/m3	
	1,1,2-Trichloroethane	Blank	<0.11	ug/m3	
	Bromoform	Blank	<0.21	ug/m3	
	1,1,2,2-Tetrachloroethane	Blank	<0.14	ug/m3	

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QC SUMMARY REPORT

SAMPLE QC: Sample Results with Duplicates
Sample Matrix Spikes and Matrix Spike Duplicates

BATCH QC: Lab fortified Blanks and Duplicates
Standard Reference Materials and Duplicates
Method Blanks

Report Date: 4/16/2009 Lims Bat # : LIMT-24615

QC Batch Number: BATCH-16460

Sample Id	Analysis	QC Analysis	Values	Units	Limits
BLANK-131927					
	Hexachlorobutadiene	Blank	<0.43	ug/m3	
	1,2,4-Trichlorobenzene	Blank	<0.15	ug/m3	
	1,2,4-Trimethylbenzene	Blank	<0.10	ug/m3	
	1,3,5-Trimethylbenzene	Blank	<0.10	ug/m3	
	Cyclohexane	Blank	<0.07	ug/m3	
	cis-1,2-Dichloroethylene	Blank	<0.08	ug/m3	
	1,2-Dichloropropane	Blank	<0.10	ug/m3	
	Dichlorodifluoromethane	Blank	<0.10	ug/m3	
	Benzyl Chloride	Blank	<0.11	ug/m3	
	Carbon Disulfide	Blank	<0.07	ug/m3	
	Vinyl Acetate	Blank	<0.29	ug/m3	
	2-Hexanone	Blank	<0.08	ug/m3	
	Bromodichloromethane	Blank	<0.14	ug/m3	
	1,2-Dibromoethane	Blank	<0.16	ug/m3	
	n-Heptane	Blank	<0.08	ug/m3	
	1,2-Dichlorotetrafluoroethane (114)	Blank	<0.14	ug/m3	
	Tetrahydrofuran	Blank	<0.06	ug/m3	
	Propene	Blank	<0.07	ug/m3	
	1,3-Butadiene	Blank	<0.05	ug/m3	
LFBLANK-94189					
	Acetone	Lab Fort Blank Amt.	11.87	ug/m3	
		Lab Fort Blk. Found	10.72	ug/m3	
		Lab Fort Blk. % Rec.	90.34	%	50-150
	Benzene	Lab Fort Blank Amt.	15.95	ug/m3	
		Lab Fort Blk. Found	13.99	ug/m3	
		Lab Fort Blk. % Rec.	87.71	%	70-130
	Carbon Tetrachloride	Lab Fort Blank Amt.	31.45	ug/m3	
		Lab Fort Blk. Found	29.19	ug/m3	
		Lab Fort Blk. % Rec.	92.82	%	70-130
	Chloroform	Lab Fort Blank Amt.	24.33	ug/m3	
		Lab Fort Blk. Found	20.31	ug/m3	
		Lab Fort Blk. % Rec.	83.46	%	70-130
	1,2-Dichloroethane	Lab Fort Blank Amt.	20.24	ug/m3	
		Lab Fort Blk. Found	17.72	ug/m3	
		Lab Fort Blk. % Rec.	87.54	%	70-130
	1,4-Dichlorobenzene	Lab Fort Blank Amt.	30.06	ug/m3	
		Lab Fort Blk. Found	35.24	ug/m3	
		Lab Fort Blk. % Rec.	117.24	%	70-130
	Ethyl Acetate	Lab Fort Blank Amt.	18.01	ug/m3	
		Lab Fort Blk. Found	18.06	ug/m3	
		Lab Fort Blk. % Rec.	100.26	%	50-150
	Ethylbenzene	Lab Fort Blank Amt.	21.67	ug/m3	
		Lab Fort Blk. Found	20.35	ug/m3	

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QC SUMMARY REPORT

SAMPLE QC: Sample Results with Duplicates
Sample Matrix Spikes and Matrix Spike Duplicates

BATCH QC: Lab fortified Blanks and Duplicates
Standard Reference Materials and Duplicates
Method Blanks

Report Date: 4/16/2009 Lims Bat # : LIMT-24615

QC Batch Number: BATCH-16460

Sample Id	Analysis	QC Analysis	Values	Units	Limits
LFBLANK-94189					
	Ethylbenzene	Lab Fort Blk. % Rec.	93.92	%	70-130
	Hexane	Lab Fort Blank Amt.	17.62	ug/m3	
		Lab Fort Blk. Found	17.84	ug/m3	
		Lab Fort Blk. % Rec.	101.28	%	70-130
	Isopropanol	Lab Fort Blank Amt.	12.28	ug/m3	
		Lab Fort Blk. Found	14.73	ug/m3	
		Lab Fort Blk. % Rec.	119.92	%	50-150
	2-Butanone (MEK)	Lab Fort Blank Amt.	14.74	ug/m3	
		Lab Fort Blk. Found	14.95	ug/m3	
		Lab Fort Blk. % Rec.	101.44	%	70-130
	4-Methyl-2-Pentanone (MIBK)	Lab Fort Blank Amt.	20.48	ug/m3	
		Lab Fort Blk. Found	25.41	ug/m3	
		Lab Fort Blk. % Rec.	124.08	%	70-130
	Styrene	Lab Fort Blank Amt.	21.26	ug/m3	
		Lab Fort Blk. Found	22.07	ug/m3	
		Lab Fort Blk. % Rec.	103.78	%	70-130
	Tetrachloroethylene	Lab Fort Blank Amt.	33.90	ug/m3	
		Lab Fort Blk. Found	33.85	ug/m3	
		Lab Fort Blk. % Rec.	99.85	%	70-130
	Toluene	Lab Fort Blank Amt.	18.81	ug/m3	
		Lab Fort Blk. Found	17.24	ug/m3	
		Lab Fort Blk. % Rec.	91.64	%	70-130
	1,1,1-Trichloroethane	Lab Fort Blank Amt.	27.28	ug/m3	
		Lab Fort Blk. Found	23.82	ug/m3	
		Lab Fort Blk. % Rec.	87.34	%	70-130
	Trichloroethylene	Lab Fort Blank Amt.	26.87	ug/m3	
		Lab Fort Blk. Found	25.55	ug/m3	
		Lab Fort Blk. % Rec.	95.11	%	70-130
	1,1,2-Trichloro-1,2,2-Trifluoroethane	Lab Fort Blank Amt.	38.31	ug/m3	
		Lab Fort Blk. Found	38.13	ug/m3	
		Lab Fort Blk. % Rec.	99.51	%	70-130
	Trichlorofluoromethane	Lab Fort Blank Amt.	28.09	ug/m3	
		Lab Fort Blk. Found	27.10	ug/m3	
		Lab Fort Blk. % Rec.	96.47	%	70-130
	o-Xylene	Lab Fort Blank Amt.	21.71	ug/m3	
		Lab Fort Blk. Found	21.27	ug/m3	
		Lab Fort Blk. % Rec.	97.96	%	70-130
	m/p-Xylene	Lab Fort Blank Amt.	43.43	ug/m3	
		Lab Fort Blk. Found	40.24	ug/m3	
		Lab Fort Blk. % Rec.	92.66	%	70-130
	1,2-Dichlorobenzene	Lab Fort Blank Amt.	30.06	ug/m3	
		Lab Fort Blk. Found	35.69	ug/m3	
		Lab Fort Blk. % Rec.	118.74	%	70-130

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QC SUMMARY REPORT

SAMPLE QC: Sample Results with Duplicates
Sample Matrix Spikes and Matrix Spike Duplicates

BATCH QC: Lab fortified Blanks and Duplicates
Standard Reference Materials and Duplicates
Method Blanks

Report Date: 4/16/2009 Lims Bat # : LIMT-24615

QC Batch Number: BATCH-16460

Sample Id	Analysis	QC Analysis	Values	Units	Limits
LFBLANK-94189					
	1,3-Dichlorobenzene	Lab Fort Blank Amt.	30.06	ug/m3	
		Lab Fort Blk. Found	35.84	ug/m3	
		Lab Fort Blk. % Rec.	119.24	%	70-130
	1,1-Dichloroethane	Lab Fort Blank Amt.	20.24	ug/m3	
		Lab Fort Blk. Found	16.56	ug/m3	
		Lab Fort Blk. % Rec.	81.82	%	70-130
	1,1-Dichloroethylene	Lab Fort Blank Amt.	19.83	ug/m3	
		Lab Fort Blk. Found	18.24	ug/m3	
		Lab Fort Blk. % Rec.	91.99	%	70-130
	Ethanol	Lab Fort Blank Amt.	9.42	ug/m3	
		Lab Fort Blk. Found	11.10	ug/m3	
		Lab Fort Blk. % Rec.	117.90	%	50-150
	4-Ethyl Toluene	Lab Fort Blank Amt.	24.58	ug/m3	
		Lab Fort Blk. Found	26.47	ug/m3	
		Lab Fort Blk. % Rec.	107.72	%	50-150
	Methyl tert-Butyl Ether (MTBE)	Lab Fort Blank Amt.	18.02	ug/m3	
		Lab Fort Blk. Found	14.63	ug/m3	
		Lab Fort Blk. % Rec.	81.15	%	70-130
	t-1,2-Dichloroethylene	Lab Fort Blank Amt.	19.82	ug/m3	
		Lab Fort Blk. Found	16.50	ug/m3	
		Lab Fort Blk. % Rec.	83.24	%	70-130
	Vinyl Chloride	Lab Fort Blank Amt.	12.78	ug/m3	
		Lab Fort Blk. Found	11.45	ug/m3	
		Lab Fort Blk. % Rec.	89.65	%	70-130
	Methylene Chloride	Lab Fort Blank Amt.	17.36	ug/m3	
		Lab Fort Blk. Found	19.96	ug/m3	
		Lab Fort Blk. % Rec.	114.98	%	70-130
	Chlorobenzene	Lab Fort Blank Amt.	23.02	ug/m3	
		Lab Fort Blk. Found	22.81	ug/m3	
		Lab Fort Blk. % Rec.	99.09	%	70-130
	Chloromethane	Lab Fort Blank Amt.	10.32	ug/m3	
		Lab Fort Blk. Found	10.28	ug/m3	
		Lab Fort Blk. % Rec.	99.64	%	70-130
	Bromomethane	Lab Fort Blank Amt.	19.40	ug/m3	
		Lab Fort Blk. Found	17.99	ug/m3	
		Lab Fort Blk. % Rec.	92.72	%	70-130
	Chloroethane	Lab Fort Blank Amt.	13.19	ug/m3	
		Lab Fort Blk. Found	12.17	ug/m3	
		Lab Fort Blk. % Rec.	92.33	%	70-130
	cis-1,3-Dichloropropene	Lab Fort Blank Amt.	22.69	ug/m3	
		Lab Fort Blk. Found	20.17	ug/m3	
		Lab Fort Blk. % Rec.	88.90	%	70-130
	trans-1,3-Dichloropropene	Lab Fort Blank Amt.	22.69	ug/m3	

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QC SUMMARY REPORT

SAMPLE QC: Sample Results with Duplicates
Sample Matrix Spikes and Matrix Spike Duplicates

BATCH QC: Lab fortified Blanks and Duplicates
Standard Reference Materials and Duplicates
Method Blanks

Report Date: 4/16/2009 Lims Bat # : LIMT-24615

QC Batch Number: BATCH-16460

Sample Id	Analysis	QC Analysis	Values	Units	Limits
LFBLANK-94189					
	trans-1,3-Dichloropropene	Lab Fort Blk. Found	20.62	ug/m3	
		Lab Fort Blk. % Rec.	90.83	%	70-130
	Chlorodibromomethane	Lab Fort Blank Amt.	42.59	ug/m3	
		Lab Fort Blk. Found	44.38	ug/m3	
		Lab Fort Blk. % Rec.	104.20	%	70-130
	1,1,2-Trichloroethane	Lab Fort Blank Amt.	27.28	ug/m3	
		Lab Fort Blk. Found	24.98	ug/m3	
		Lab Fort Blk. % Rec.	91.60	%	70-130
	Bromoform	Lab Fort Blank Amt.	51.69	ug/m3	
		Lab Fort Blk. Found	61.68	ug/m3	
		Lab Fort Blk. % Rec.	119.32	%	70-130
	1,1,2,2-Tetrachloroethane	Lab Fort Blank Amt.	34.33	ug/m3	
		Lab Fort Blk. Found	37.28	ug/m3	
		Lab Fort Blk. % Rec.	108.60	%	70-130
	Hexachlorobutadiene	Lab Fort Blank Amt.	53.33	ug/m3	
		Lab Fort Blk. Found	56.26	ug/m3	
		Lab Fort Blk. % Rec.	105.50	%	70-130
	1,2,4-Trichlorobenzene	Lab Fort Blank Amt.	37.10	ug/m3	
		Lab Fort Blk. Found	46.70	ug/m3	
		Lab Fort Blk. % Rec.	125.86	%	70-130
	1,2,4-Trimethylbenzene	Lab Fort Blank Amt.	24.58	ug/m3	
		Lab Fort Blk. Found	25.84	ug/m3	
		Lab Fort Blk. % Rec.	105.14	%	70-130
	1,3,5-Trimethylbenzene	Lab Fort Blank Amt.	24.58	ug/m3	
		Lab Fort Blk. Found	25.11	ug/m3	
		Lab Fort Blk. % Rec.	102.18	%	70-130
	Cyclohexane	Lab Fort Blank Amt.	17.21	ug/m3	
		Lab Fort Blk. Found	19.57	ug/m3	
		Lab Fort Blk. % Rec.	113.76	%	50-150
	cis-1,2-Dichloroethylene	Lab Fort Blank Amt.	19.82	ug/m3	
		Lab Fort Blk. Found	16.57	ug/m3	
		Lab Fort Blk. % Rec.	83.57	%	70-130
	1,2-Dichloropropane	Lab Fort Blank Amt.	23.10	ug/m3	
		Lab Fort Blk. Found	20.86	ug/m3	
		Lab Fort Blk. % Rec.	90.32	%	70-130
	Dichlorodifluoromethane	Lab Fort Blank Amt.	24.72	ug/m3	
		Lab Fort Blk. Found	21.49	ug/m3	
		Lab Fort Blk. % Rec.	86.93	%	70-130
	Benzyl Chloride	Lab Fort Blank Amt.	25.88	ug/m3	
		Lab Fort Blk. Found	28.02	ug/m3	
		Lab Fort Blk. % Rec.	108.28	%	70-130
	Carbon Disulfide	Lab Fort Blank Amt.	15.57	ug/m3	
		Lab Fort Blk. Found	13.30	ug/m3	

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QC SUMMARY REPORT

SAMPLE QC: Sample Results with Duplicates
Sample Matrix Spikes and Matrix Spike Duplicates

BATCH QC: Lab fortified Blanks and Duplicates
Standard Reference Materials and Duplicates
Method Blanks

Report Date: 4/16/2009 Lims Bat # : LIMT-24615

QC Batch Number: BATCH-16460

Sample Id	Analysis	QC Analysis	Values	Units	Limits
LFBLANK-94189					
	Carbon Disulfide	Lab Fort Blk. % Rec.	85.42	%	70-130
	Vinyl Acetate	Lab Fort Blank Amt.	17.60	ug/m3	
		Lab Fort Blk. Found	17.25	ug/m3	
		Lab Fort Blk. % Rec.	98.00	%	70-130
	2-Hexanone	Lab Fort Blank Amt.	20.48	ug/m3	
		Lab Fort Blk. Found	24.79	ug/m3	
		Lab Fort Blk. % Rec.	121.06	%	50-150
	Bromodichloromethane	Lab Fort Blank Amt.	33.50	ug/m3	
		Lab Fort Blk. Found	32.55	ug/m3	
		Lab Fort Blk. % Rec.	97.18	%	70-130
	1,2-Dibromoethane	Lab Fort Blank Amt.	38.42	ug/m3	
		Lab Fort Blk. Found	38.31	ug/m3	
		Lab Fort Blk. % Rec.	99.70	%	70-130
	n-Heptane	Lab Fort Blank Amt.	20.49	ug/m3	
		Lab Fort Blk. Found	20.59	ug/m3	
		Lab Fort Blk. % Rec.	100.50	%	50-150
	1,2-Dichlorotetrafluoroethane (114)	Lab Fort Blank Amt.	34.95	ug/m3	
		Lab Fort Blk. Found	31.66	ug/m3	
		Lab Fort Blk. % Rec.	90.57	%	70-130
	Tetrahydrofuran	Lab Fort Blank Amt.	14.74	ug/m3	
		Lab Fort Blk. Found	16.31	ug/m3	
		Lab Fort Blk. % Rec.	110.64	%	50-150
	Propene	Lab Fort Blank Amt.	8.60	ug/m3	
		Lab Fort Blk. Found	7.94	ug/m3	
		Lab Fort Blk. % Rec.	92.28	%	50-150
	1,3-Butadiene	Lab Fort Blank Amt.	11.06	ug/m3	
		Lab Fort Blk. Found	11.80	ug/m3	
		Lab Fort Blk. % Rec.	106.72	%	70-130

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QC SUMMARY REPORT

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BATCH QC: Lab fortified Blanks and Duplicates
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QUALITY CONTROL DEFINITIONS AND ABBREVIATIONS

QC BATCH NUMBER	This is the number assigned to all samples analyzed together that would be subject to comparison with a particular set of Quality Control Data.
LIMITS	Upper and Lower Control Limits for the QC ANALYSIS Reported. All values normally would fall within these statistically determined limits, unless there is an unusual circumstance that would be documented in a NOTE appearing on the last page of the QC SUMMARY REPORT. Not all QC results will have Limits defined.
Sample Amount	Amount of analyte found in a sample.
Blank	Method Blank that has been taken though all the steps of the analysis.
LFBLANK	Laboratory Fortified Blank (a control sample)
STDADD	Standard Added (a laboratory control sample)
Matrix Spk Amt Added	Amount of analyte spiked into a sample
MS Amt Measured	Amount of analyte found including amount that was spiked
Matrix Spike % Rec.	% Recovery of spiked amount in sample.
Duplicate Value	The result from the Duplicate analysis of the sample.
Duplicate RPD	The Relative Percent Difference between two Duplicate Analyses.
Surrogate Recovery	The % Recovery for non-environmental compounds (surrogates) spiked into samples to determine the performance of the analytical methods.
Sur. Recovery (ELCD)	Surrogate Recovery on the Electrolytic Conductivity Detector.
Sur. Recovery (PID)	Surrogate Recovery on the Photoionization Detector.
Standard Measured	Amount measured for a laboratory control sample
Standard Amt Added	Known value for a laboratory control sample
Standard % Recovery	% recovered for a laboratory control sample with a known value.
Lab Fort Blank Amt	Laboratory Fortified Blank Amount Added
Lab Fort Blk. Found	Laboratory Fortified Blank Amount Found
Lab Fort Blk % Rec	Laboratory Fortified Blank % Recovered
Dup Lab Fort Bl Amt	Duplicate Laboratory Fortified Blank Amount Added
Dup Lab Fort Bl Fnd	Duplicate Laboratory Fortified Blank Amount Found
Dup Lab Fort Bl % Rec	Duplicate Laboratory Fortified Blank % Recovery
Lab Fort Blank Range	Laboratory Fortified Blank Range (Absolute value of difference between recoveries for Lab Fortified Blank and Lab Fortified Blank Duplicate).
Lab Fort Bl. Av. Rec.	Laboratory Fortified Blank Average Recovery
Duplicate Sample Amt	Sample Value for Duplicate used with Matrix Spike Duplicate
MSD Amount Added	Matrix Spike Duplicate Amount Added (Spiked)
MSD Amt Measured	Matrix Spike Duplicate Amount Measured
MSD % Recovery	Matrix Spike Duplicate % Recovery
MSD Range	Absolute difference between Matrix Spike and Matrix Spike Duplicate Recoveries

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East Longmeadow, MA 01028
413.525.2332
413.525.6405 (fax)

RESULTS FOR METHOD 3C

Lab ID Number: 09B11163
Client ID Number: MC-29 RESAMPLE

LIMS Number: 24615
Analyst: XC
Date Analyzed: 4/16/09

Analyte:	Sample Results %	RL %
Nitrogen	95.1	15.6
Oxygen	ND	4.20

Gases sample analyzed by GC/TCD, method 3C(modified).
ND = Not Detected
RL=Reporting Limit

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RESULTS FOR METHOD 3C

Lab ID Number: 09B11163
Client ID Number: MC-29 RESAMPLE

LIMS Number: 24615
Analyst: XC
Date Analyzed: 4/16/09

Analyte:	Sample Results PPMV	RL PPMV
Methane	19800	16
Carbon Dioxide	38400	20
Carbon Monoxide	22600	210

Gases sample analyzed by GC/TCD, method 3C(modified).
ND = Not Detected
RL=Reporting Limit

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Fax: 413-525-6405
Email: info@contestlabs.com
www.contestlabs.com
39 SPRUCE ST
EAST LONGMEADOW, MA 01028

AIR SAMPLE CHAIN OF CUSTODY RECORD

Lot # 24615

Company Name: AECOM
Address: 750 Corporate Woods Parkway
Vernon Hills IL 60061
Attention: Craig Rawlinson
Project Location: Greenbrook school
Sampled By: Matt Weiss

Telephone: (847) 279-2500
Project # 13069002
Client PO #

DATA DELIVERY (check one):
☐FAX ☑EMAIL ☐WEBSITE CLIENT
Fax #: (847) 279-2570
Email: Craig.Rawlinson@aecom.com
Format: ☑EXCEL ☐PDF ☐ GIS KEY ☐ OTHER

Proposal Provided? (For Billing purposes)
☐ yes _____ proposal date

Field ID	Sample Description	Media	Lab # 098	Date Sampled Start Date Time	Date Sampled Stop Date Time	ONLY USE WHEN USING PUMPS Total Minutes Sampled	Flow Rate M^3/Min. or L/Min.	Volume Liters or M^3	Matrix Code*	ANALYSIS REQUESTED USEPA TO-15	USEPA 3C	" Hg Initial pressure	" Hg Final Pressure	Lab Receipt pressure	Summa Canister ID	Flow Controller ID
ML-29 Resample	Air/Grab	S	10771163	4/6/09 1425	4/6/09 1425				SG	✓	✓	Not Measured			1077	N/A
ML-29	Air/Grab	S	1338 1116	4/4/09 1730	4/4/09 1730				SG	~~✓~~	~~✓~~	Not Measured			1338	N/A

Please fill out completely, sign, date and retain the yellow copy for your record.
Summa canisters and flow controllers must be returned within 14 days of receipt or rental fees will apply.
Summa canisters will be retained for a minimum of 14 days after sampling date prior to cleaning.

Laboratory Comments:

CLIENT COMMENTS:
Hold ML-29 sample pending results of ML-29 re-sample
Call with questions

SDM

Relinquished by: (signature)	Date/Time: 4/6/09 1800
Received by: (signature)	Date/Time: 4/9/09 1007
Relinquished by: (signature)	Date/Time:
Received by: (signature)	Date/Time:

Turnaround **
☑ 7-Day
☐ 10-Day
☐ Other ___
RUSH *
☐ *24-Hr ☐ *48-Hr
☐ *72-Hr ☐ *4-Day
*Approval Required

Special Requirements
Regulations: _____
Data Enhancement/RCP? ☐ Y ☐ N
Enhanced Data Package ☐ Y ☐ N
(Surchage Applies)
Required Detection Limits: _____
Other: _____

*Matrix Code:
SG= SOIL GAS
IA= INDOOR AIR
AMB=AMBIENT
SS = SUB SLAB
D = DUP
BL = BLANK
O = other _____

**Media Codes:
S=summa can
TB=tedlar bag
P=PUF
T=tube
F= filter
C=cassette
O = Other _____

** TURNAROUND TIME STARTS AT 9:00 A.M. THE DAY AFTER SAMPLE RECEIPT UNLESS THERE ARE QUESTIONS ON YOUR CHAIN. IF THIS FORM IS NOT FILLED OUT COMPLETELY OR IS INCORRECT, TURNAROUND TIME WILL NOT START UNTIL ALL QUESTIONS ARE ANSWERED BY OUR CLIENT.

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United States

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Tracking Summary

Printer Friendl

Tracking Number:	1Z 4F4 Y09 03 8562 410 8
	View package progress
Type:	Package
Status:	**Delivered**
Delivered On:	04/09/2009 10:07 A.M.
Delivered To:	EAST LONGMEADOW, MA, US
Signed By:	MURPHY
Service:	GROUND

Tracking results provided by UPS: 04/09/2009 10:29 A.M. ET

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39 Spruce Street
East Longmeadow, MA
Phone: 1-413-525-2332
Fax: 1-413-525-6405

AIR ONLY RECEIPT CHECKLIST

CLIENT NAME: Aecom

RECEIVED BY: KO DATE: 4/9/09

1. Was chain of custody relinquished and signed? (YES) NO
2. Does Chain agree with samples? (YES) NO

If not, explain:

3. All Samples in good condition? (YES) NO

If not, explain:

4. Are there any on hold samples? YES NO STORED WHERE:

5. ARE THERE ANY RUSH OR SHORT HOLDING TIME SAMPLES? WHO WAS NOTIFIED?_____DATE_____TIME_____

Location where samples are stored: Air Lab

Permission to sub-contract samples? Yes No (circle)
(Walk in clients only) if not already approved.
Client Signature_____

CONTAINERS SENT TO CON-TEST	# of containers
Summa cans	4
Tedlar Bags	
Regulators	4
Restrictors	
Tubes	
Other	

1. Was all media (used & unused) checked into the WASP asset management program? Y
2. Were all returned summa cans, restrictors, & regulators documented as returned in the AIR Lab Outbound excel sheet? Y
3. Were the Lab ID's documented in the Air Lab Outbound excel sheet? Y
4. Was the job documented in the Air Lab Log-In Access Database? Y

Laboratory comments:

Appendix E

USEPA Correspondence

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

REPLY TO THE ATTENTION OF:
L-8J

Dr. Carol Auer
Superintendent District 20
5540 Arlington Drive East
Hanover Park, Illinois 60133

Dear Dr. Auer:

Students and staff at Greenbrook Elementary School are safe from a methane gas hazard according to results from indoor air and underground sampling recently overseen by the U.S. Environmental Protection Agency. Methane detectors installed in the school will continue to monitor the indoor air and alert school officials if a problem arises, but to date the devices have not detected methane in the building. Methane also was not found in the indoor air samples analyzed by health experts.

A number of underground methane samples were also taken around and under the school during spring break March 28 – April 5, 2009. The samples were collected from various depths around the south, west and north sides of the school and from four locations underneath the building. Methane was detected in one of these samples, which was collected about 10 feet south of the south wall near the west side of the building. The concentration detected at this location ranged between 0 and 4.7 percent methane. The depth of this sample was between 16-25 feet.

The EPA continues to investigate the release of underground methane gas from the landfill. As you know, Browning Ferris Industries (BFI) and the Forest Preserve of DuPage County (DFP) signed a legal agreement with EPA to contain and clean up methane sources and hot spots. BFI and DFP are installing a well about 250 feet away from the Greenbrook building to remove an underground pocket of methane gas. Well drilling is expected to begin this weekend or early next week. The well contractor will take steps to protect the safety of students and staff during drilling.

In consultation with the federal Agency for Toxic Substances and Disease Registry, the Illinois Department of Public Health and the DuPage County Health Department, here are our conclusions:

1. Data collected to date do not suggest a public health hazard to staff or students who will be returning to Greenbrook School from their Spring Break on Monday, April 6.

2. No methane from beneath the surface has been detected in the air in the school.

3. The methane detector that is continuously monitoring the air in the school would provide sufficient warning to protect the health and safety of the staff and students in the unlikely event that methane does enter the school.

The EPA will continue to keep the school district advised of the results of our ongoing investigation and will continue to solicit public health guidance from local, state, and federal health agencies on any potential risks posed by landfill gases in the area of the school.

If you have comments or questions, please don't hesitate to call me or these EPA staff members: Walter Nied (nied.walter@epa.gov, 312-886-4466), Steve Faryan (steven.faryan@epa.gov, 312-353-9351), and Donna Twickler (twickler.donna@epa.gov, 312-886-6184).

Sincerely,

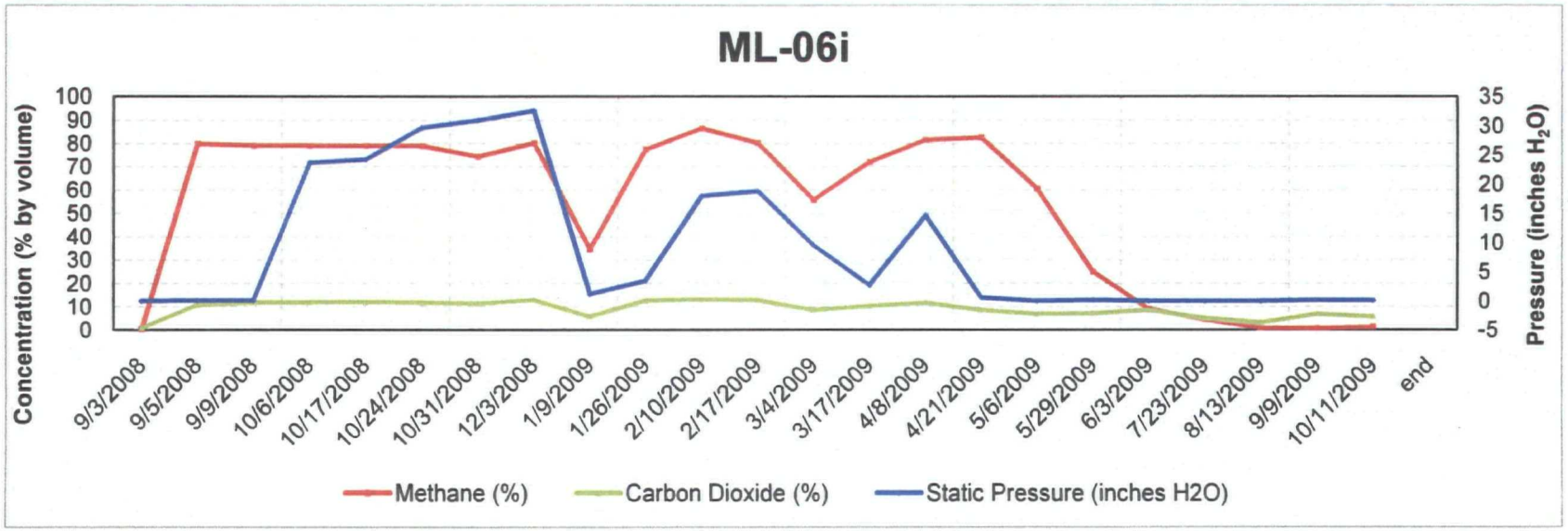
Margaret M. Guerierro
Director
Land and Chemicals Division

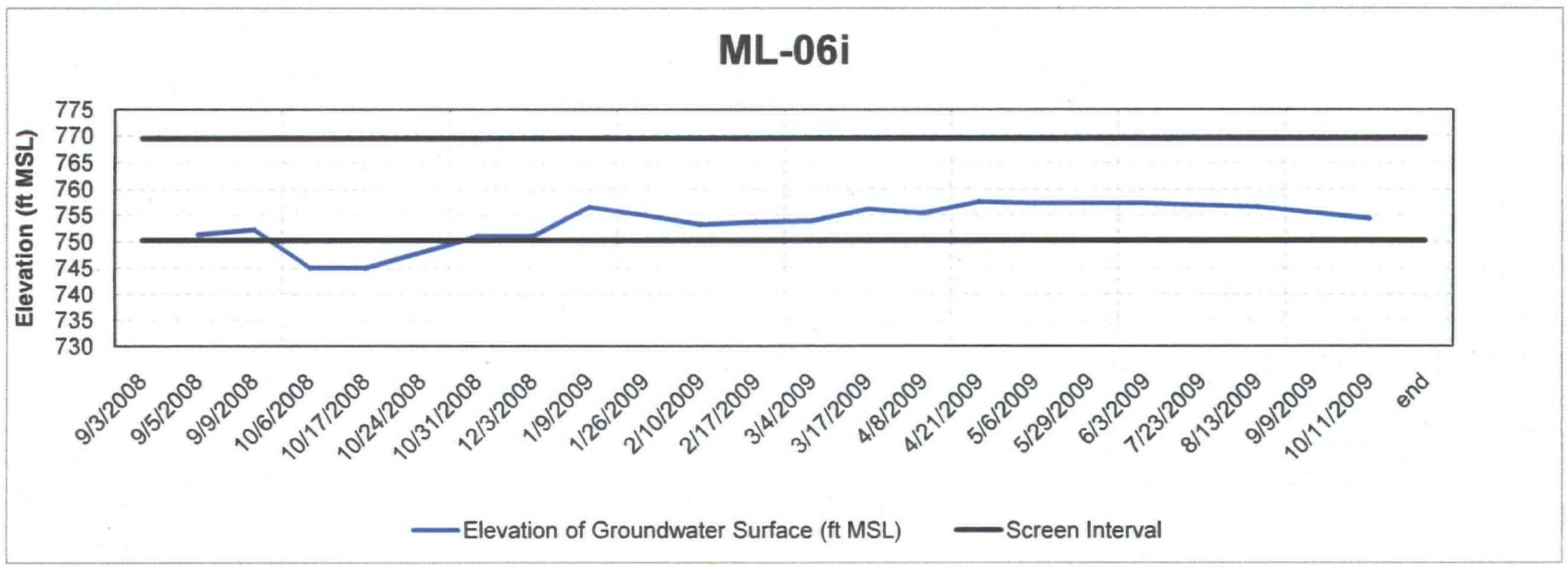
cc: Gary Olfisher, School District 20
Kevin Dixon, DCHD
Harvey Mull, DuPage County Health Department
Michelle Colledge, ATSDR
Tiffanie Denny, IDPH
Ken Runkle, IDPH
Thomas Rivera, IEPA
Chris Liebman, IEPA
Carol Fuller, IEPA
Rodney Craig, Hanover Park
Mark Masciola, Hanover Park

Appendix F

Gas Monitoring Probe Graphical Analyses

Gas Monitoring Probe Graphical Analyses
Greenbrook School Nature and Extent Characterization
Mallard Lake Landfill
AECOM Project No 60139758.1800





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Greenbrook School Nature and Extent Characterization
Mallard Lake Landfill
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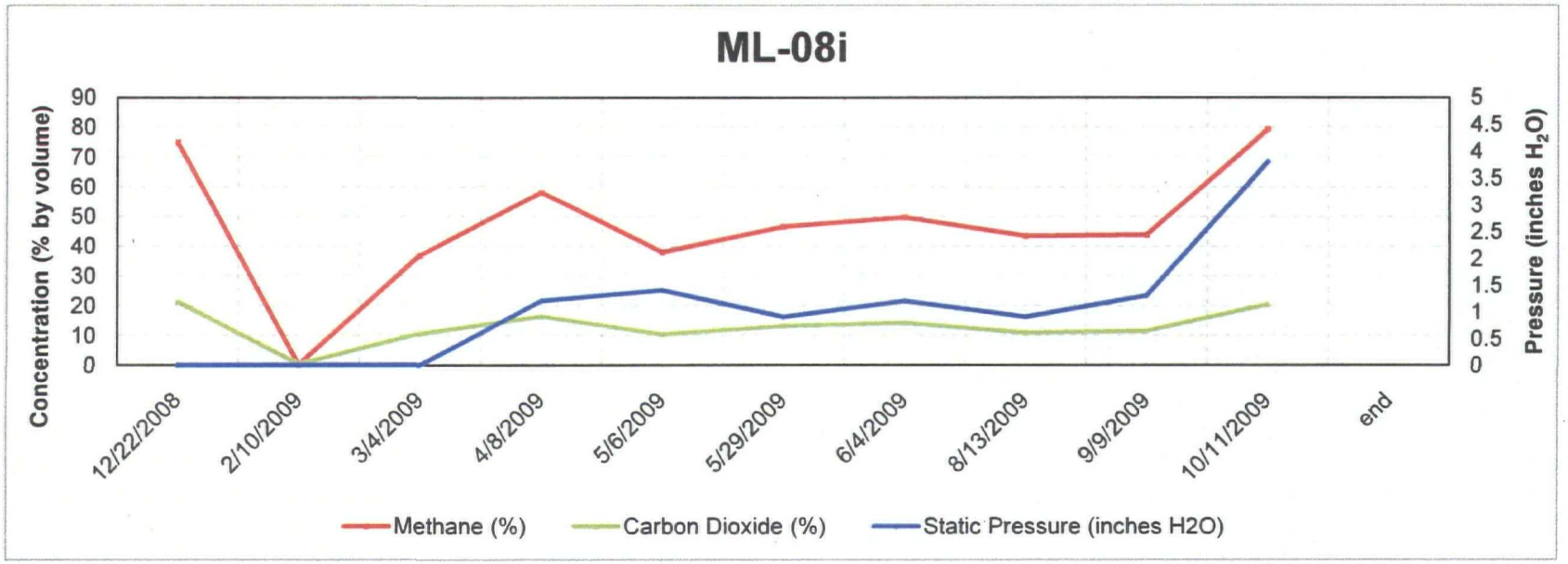

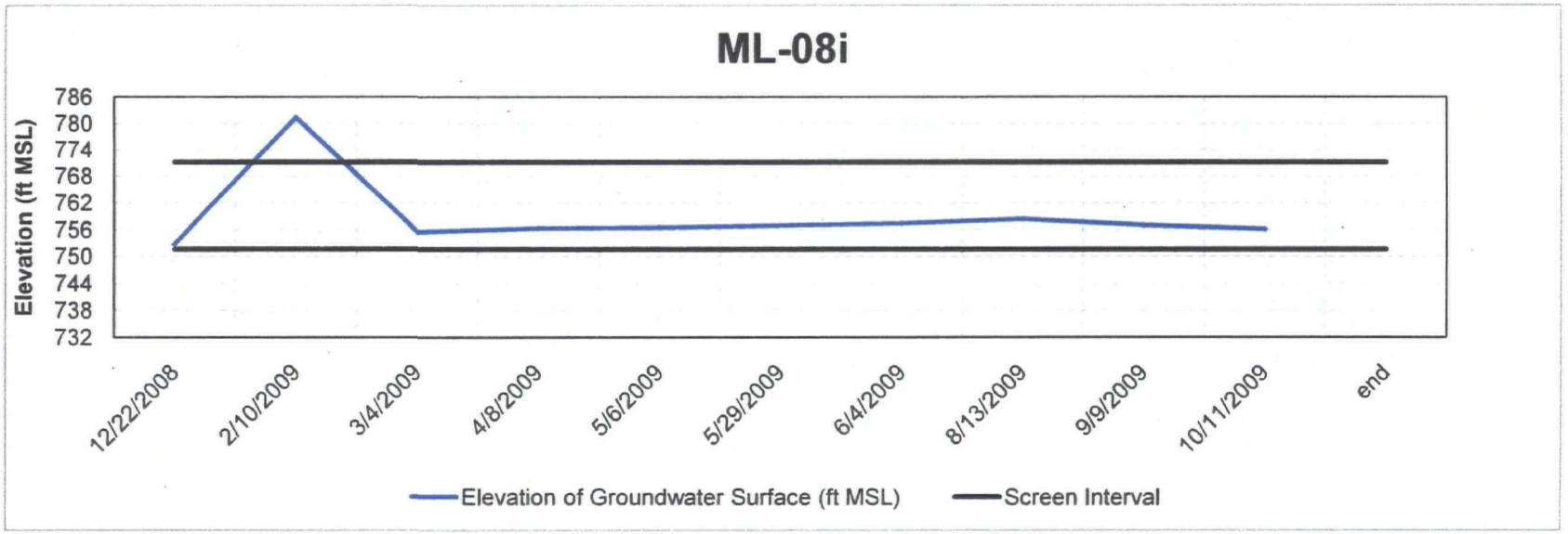

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Greenbrook School Nature and Extent Characterization
Mallard Lake Landfill
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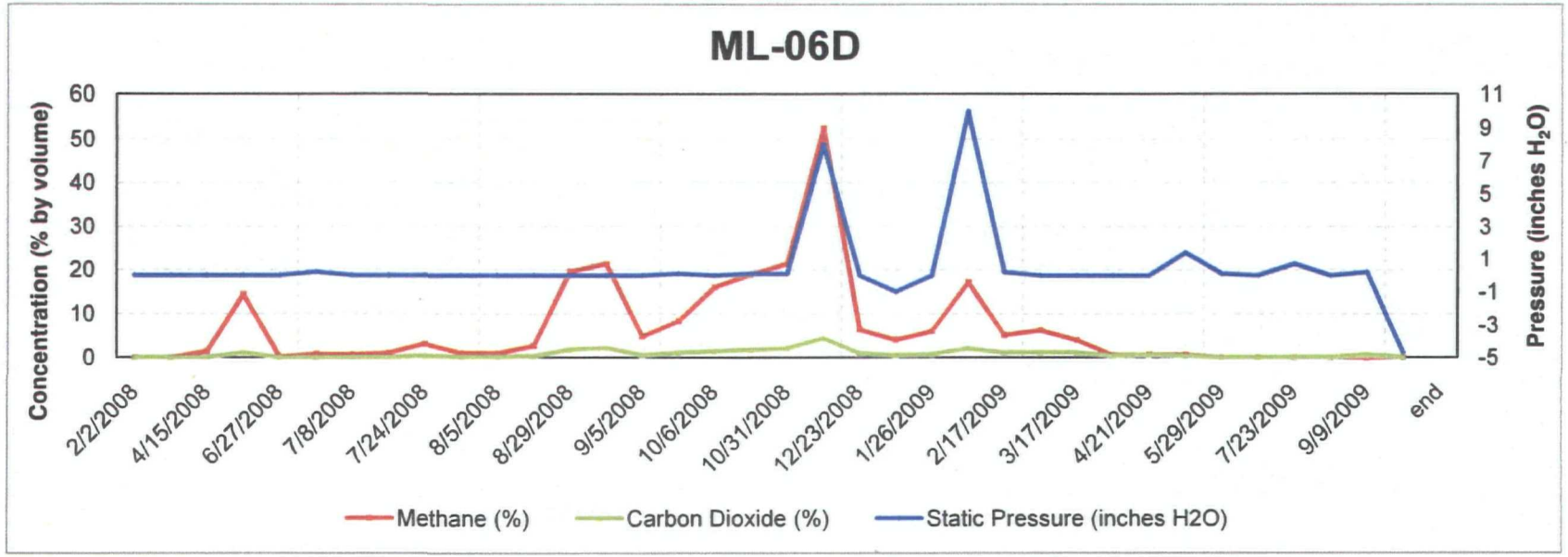

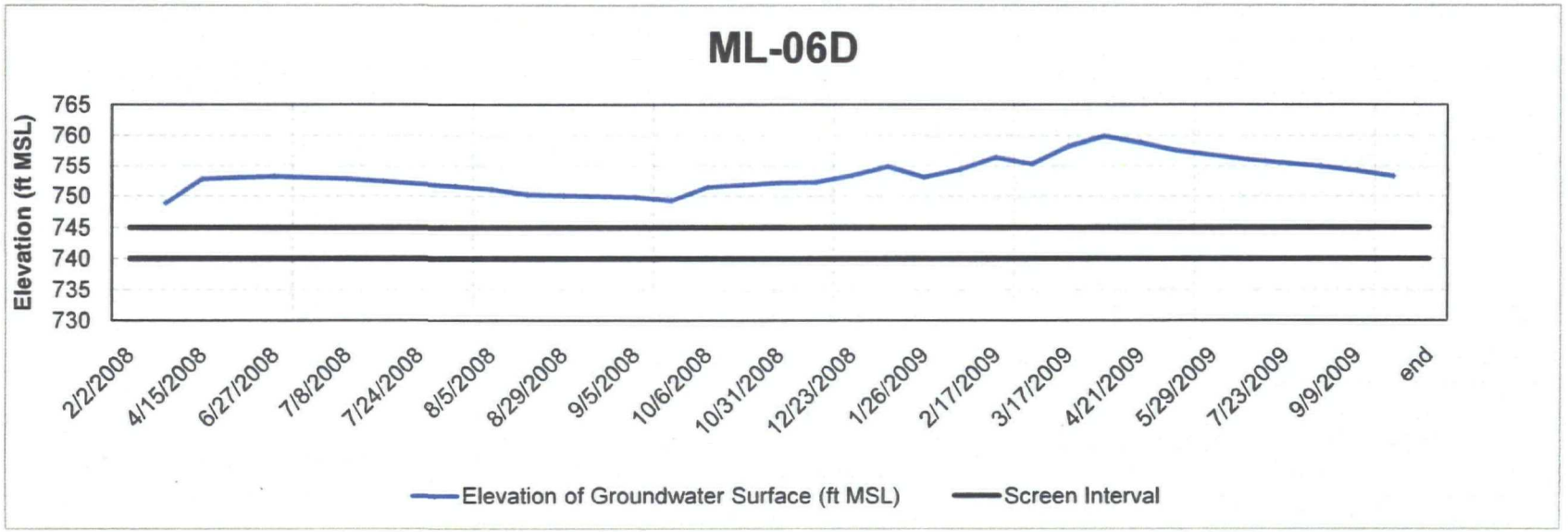

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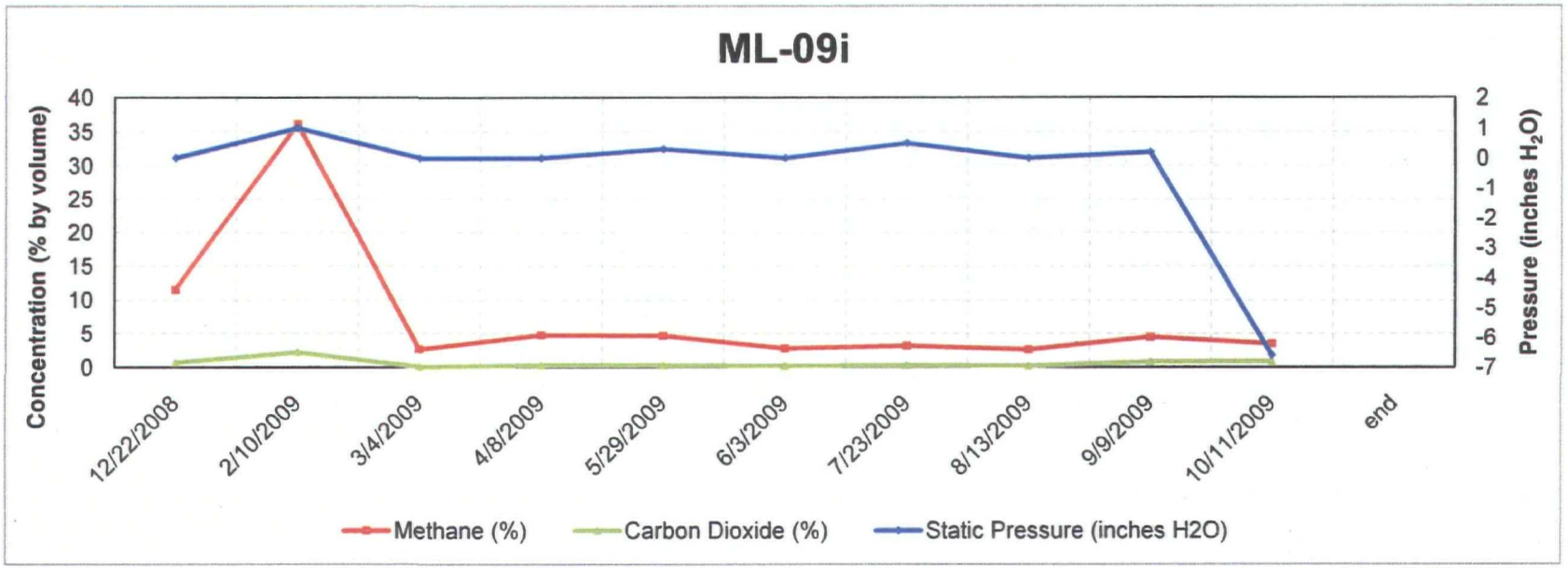

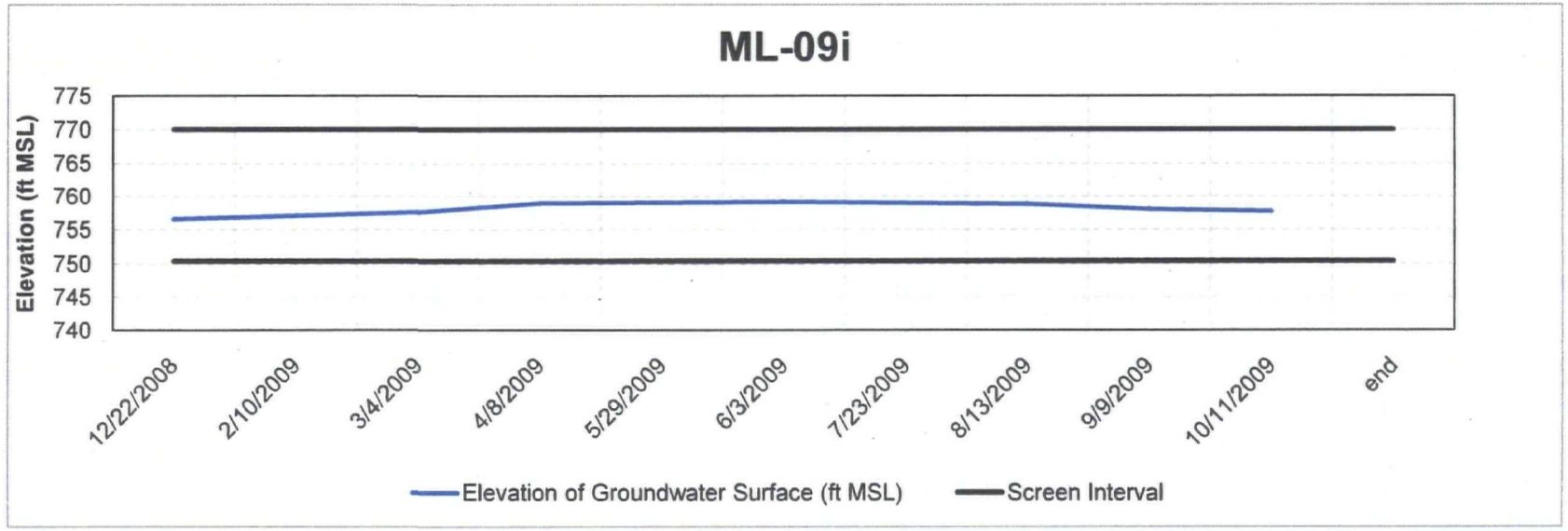

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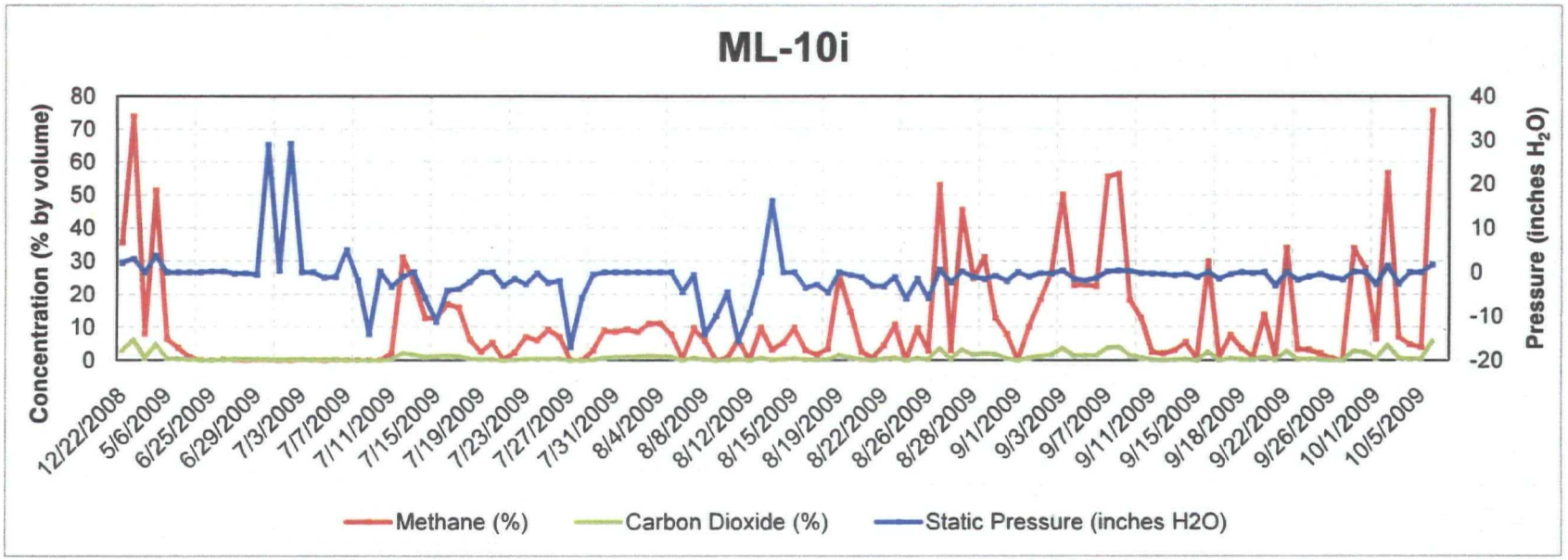

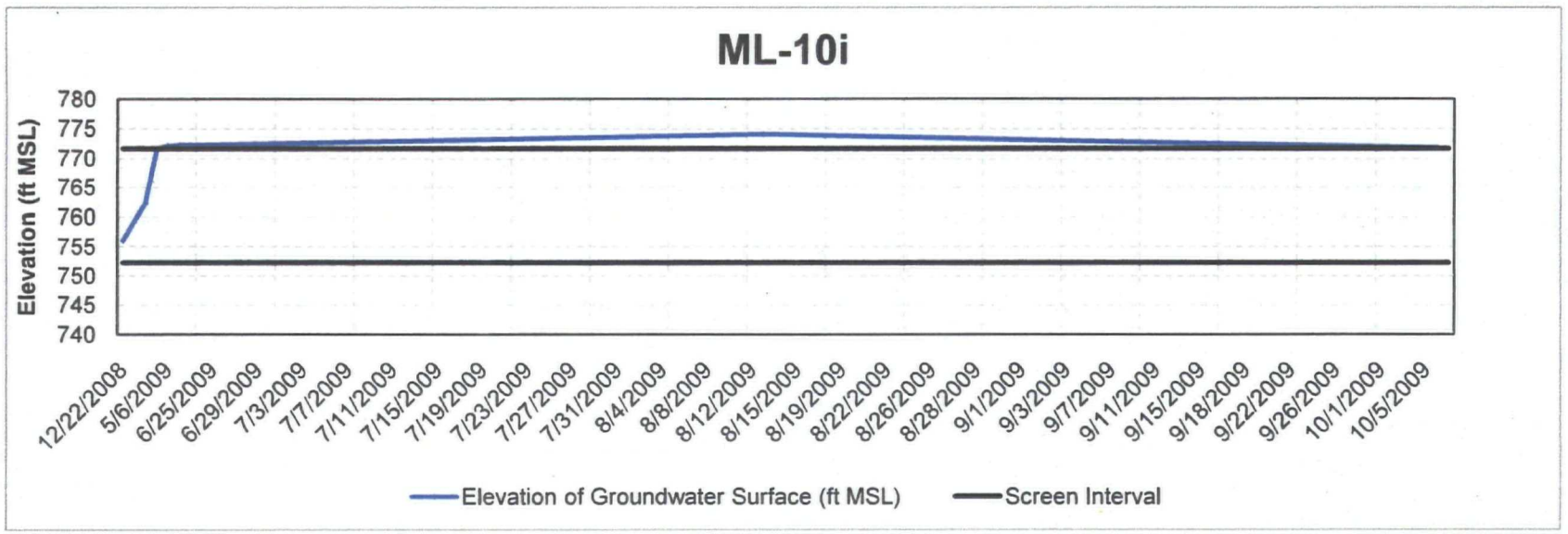

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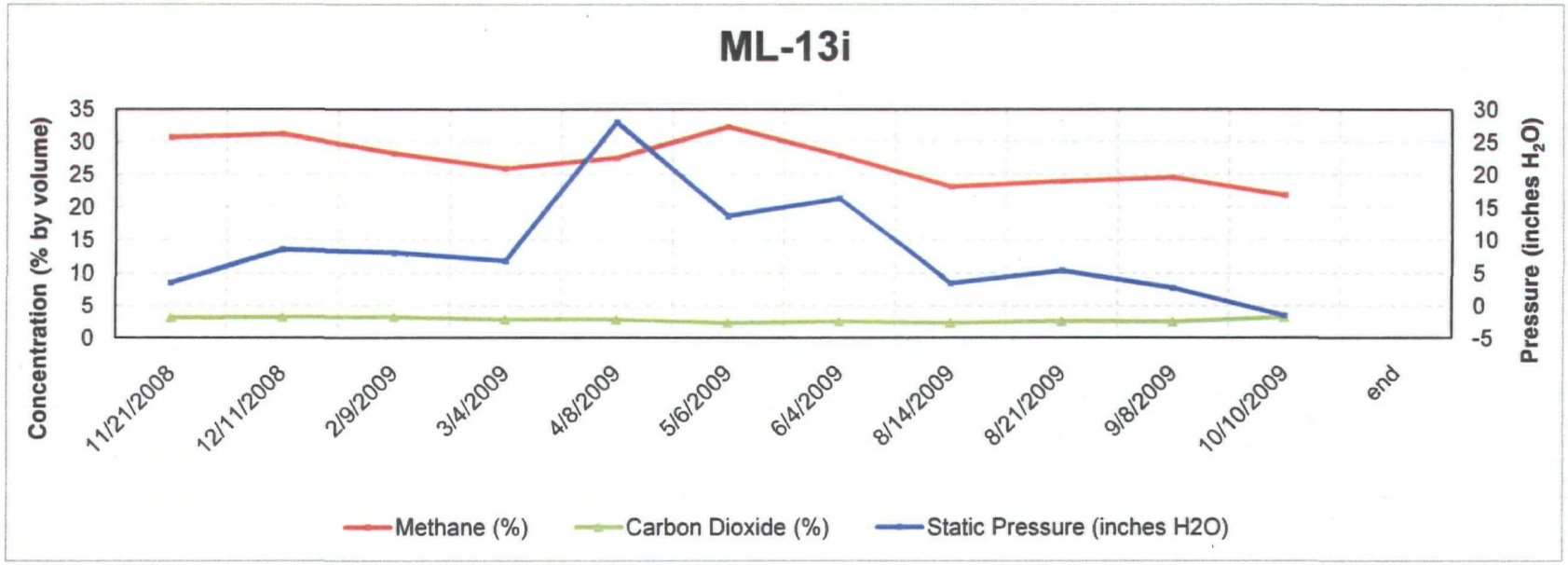

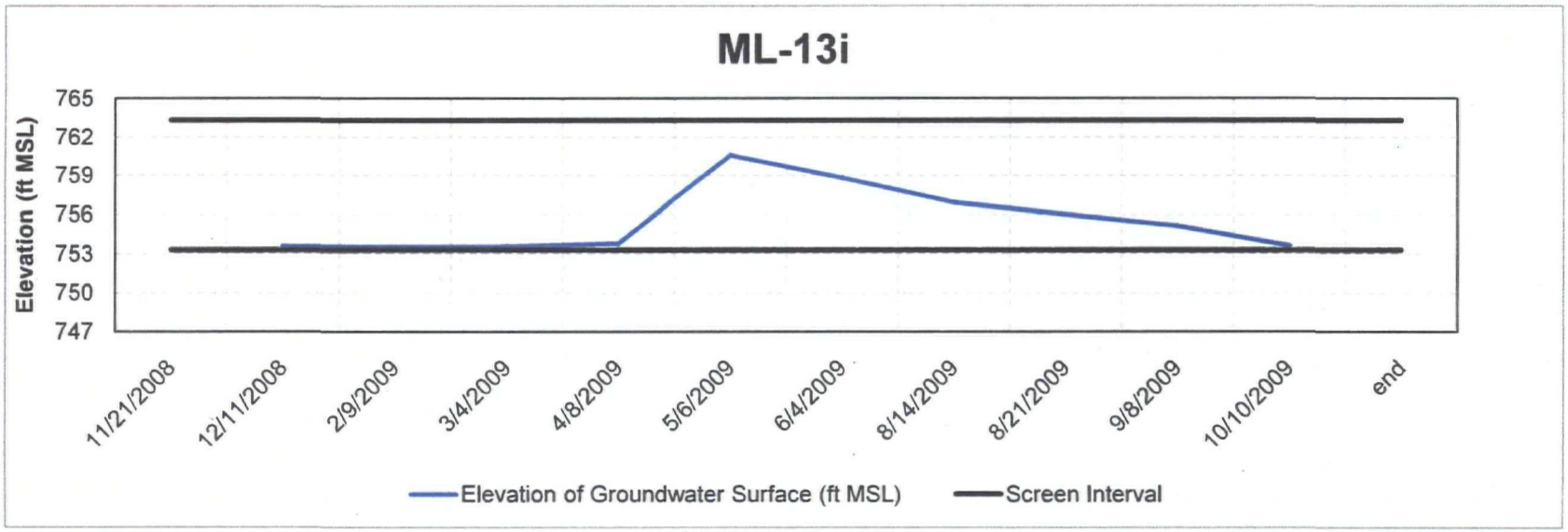

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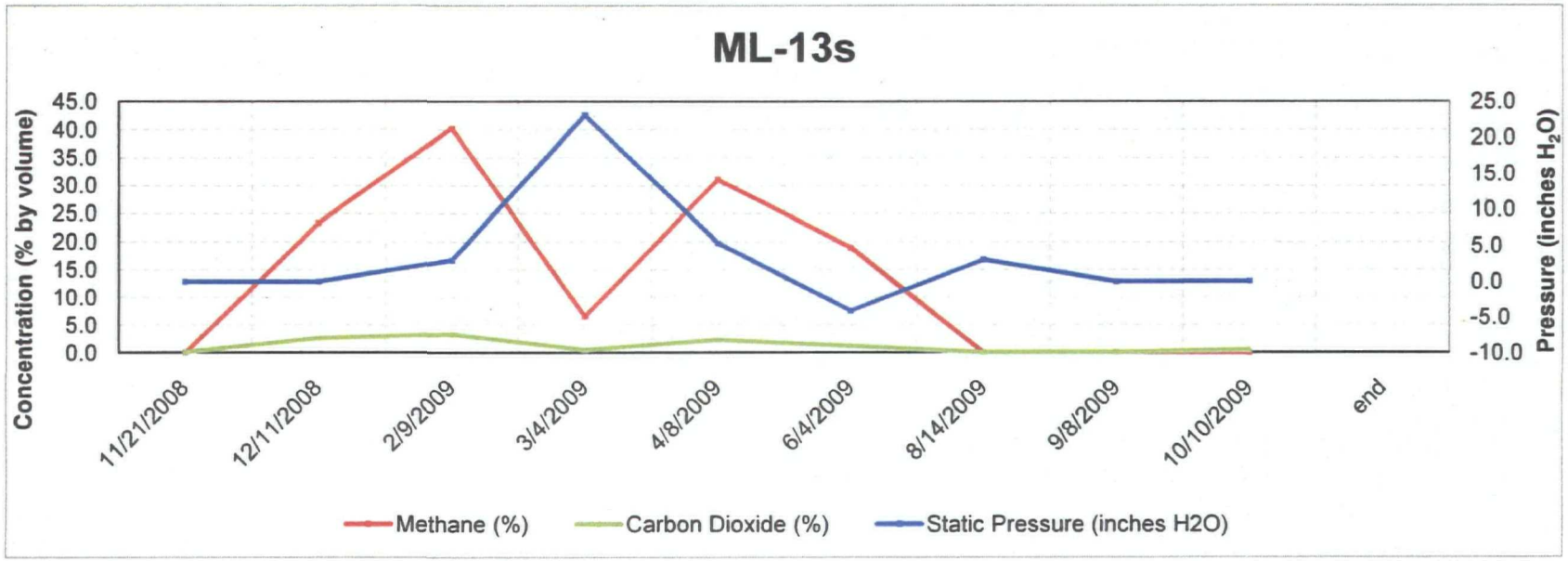

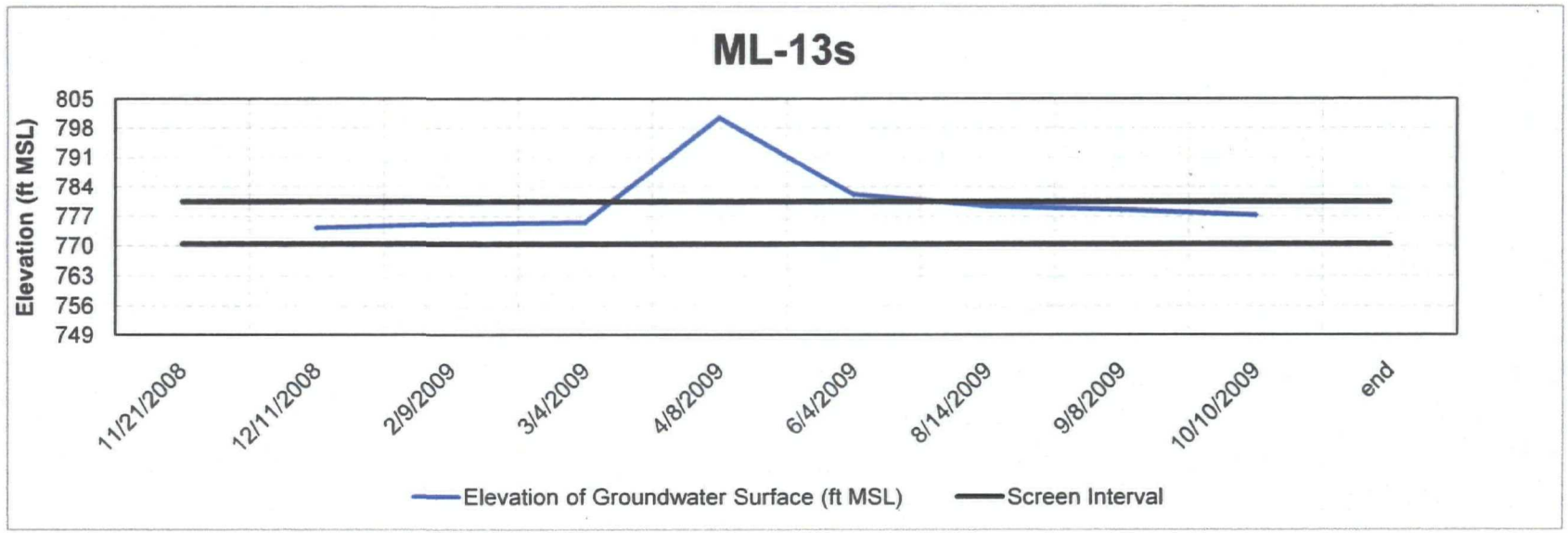

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Greenbrook School Nature and Extent Characterization
Mallard Lake Landfill
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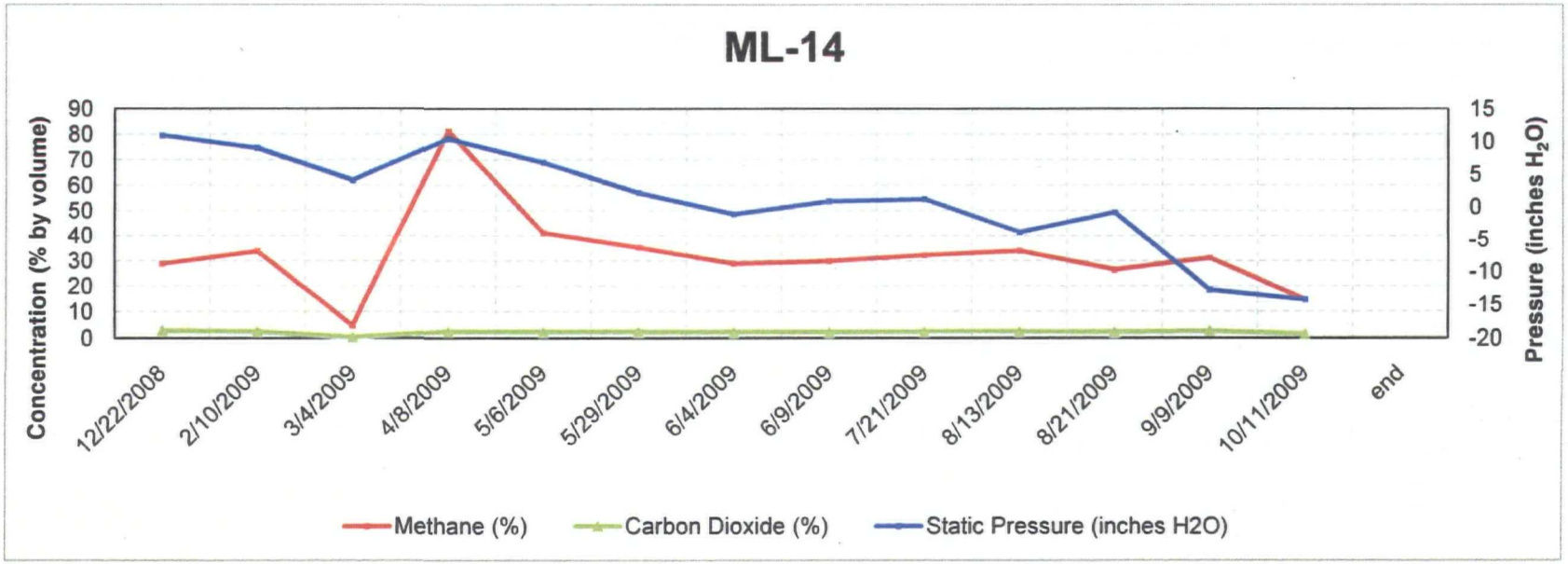

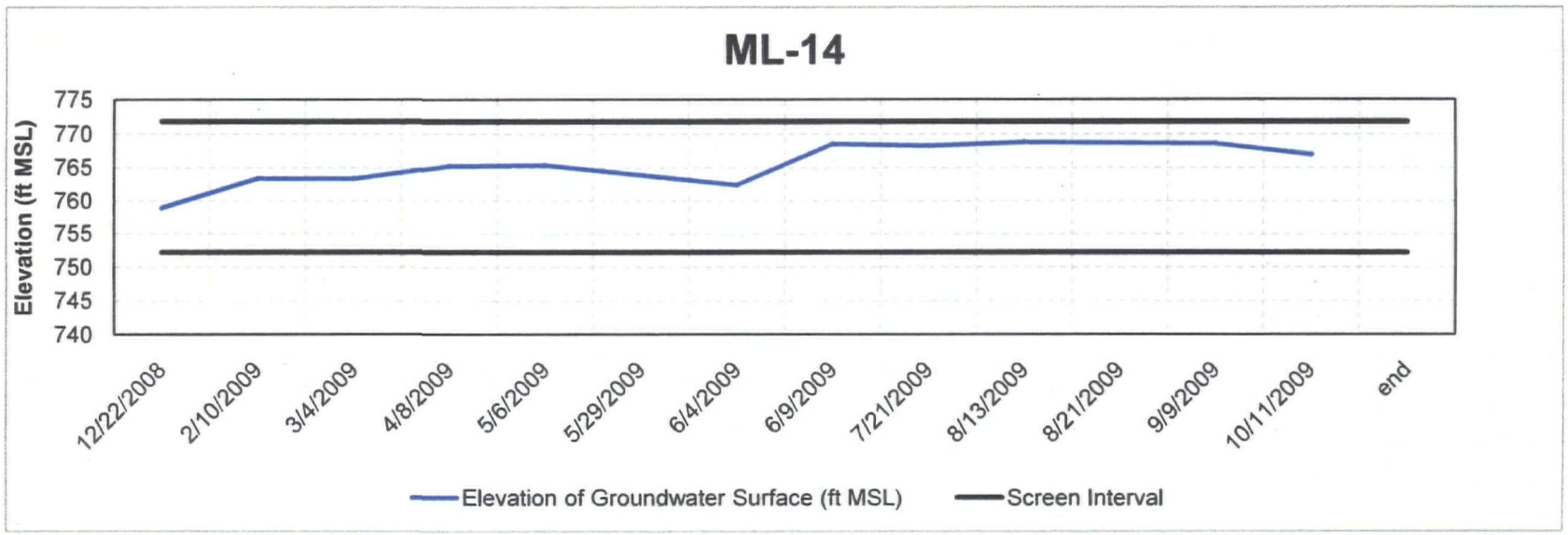

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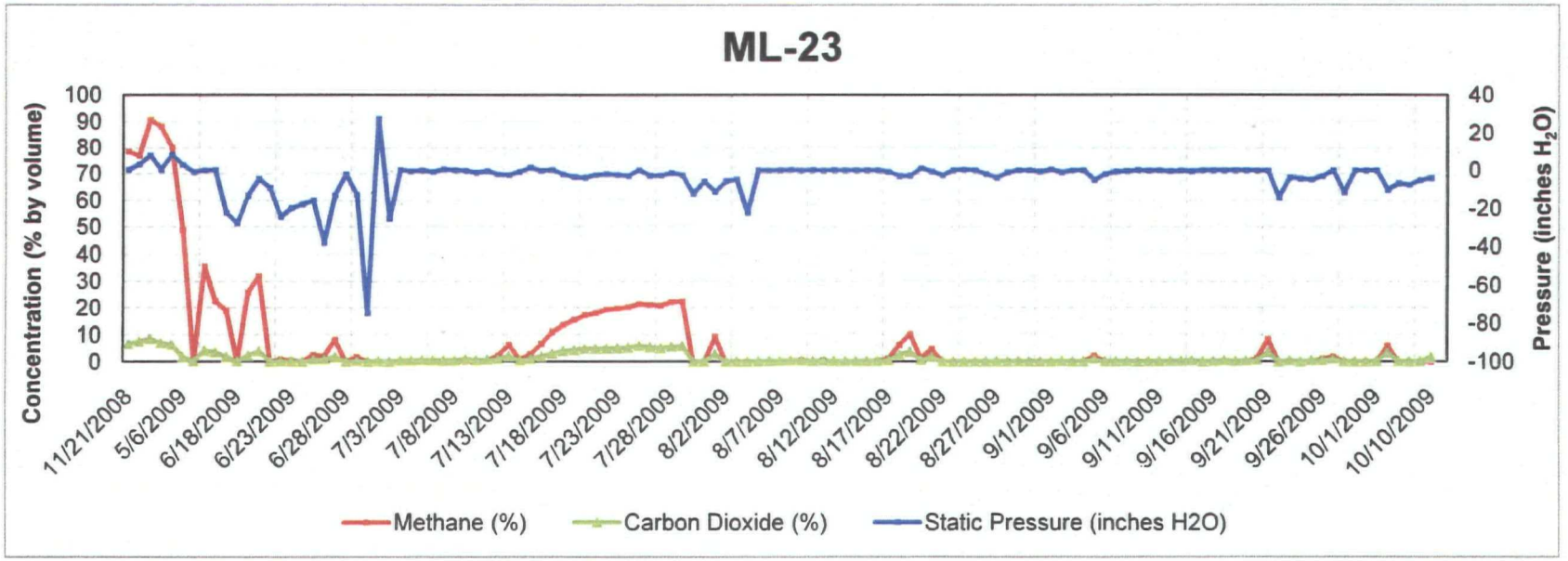

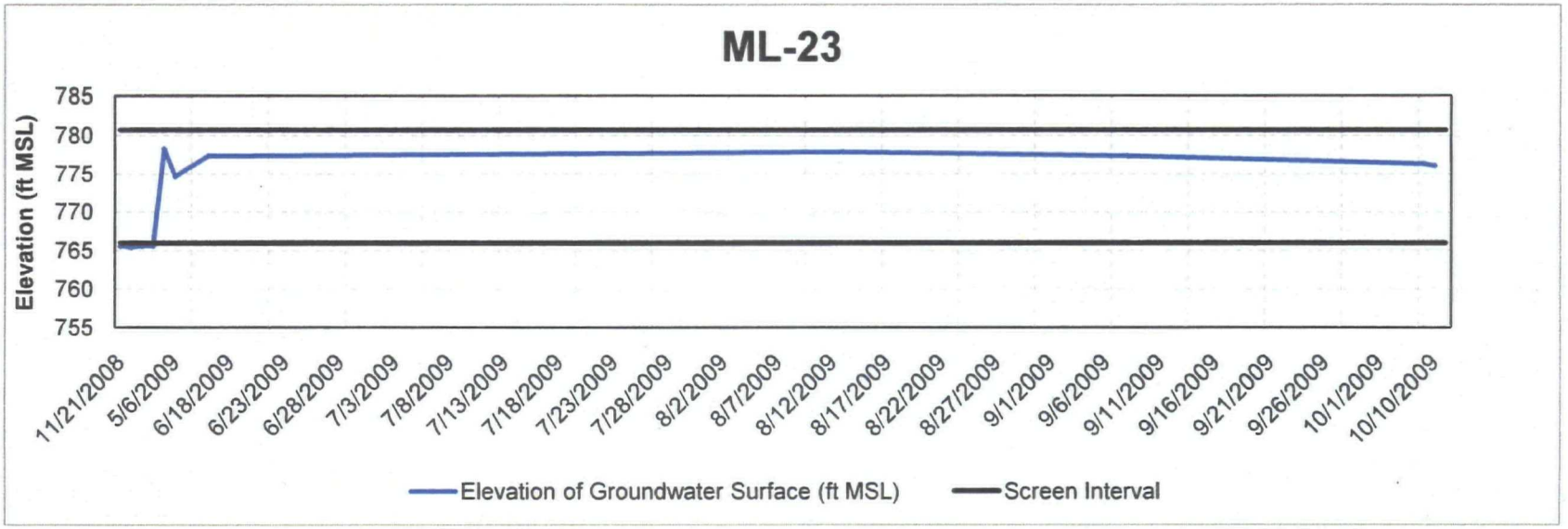

TABLES

Table 1
Summary of Gas Probe Construction
Greenbrook School Nature and Extent Characterization
Mallard Lake Landfill
AECOM Project No 60139758

Well Name	Description			Site Coordinates		IL St. Plane E		Ground Surface	Top of Flush Mount Casing	Mid Valve Elevation	Screen Interval				Sounding Terminal Depth	Sounding Terminal Elevation
				Northing	Easting	Northing	Easting				Top	Bottom	Top	Bottom		
	Type of Borehole	Well Construction	Contractor	(ft)	(ft)	(ft)	(ft)	(ft MSL)	(ft msl)	(ft msl)	(ft bgs)	(ft bgs)	(ft msl)	(ft msl)	(ft msl)	(ft msl)
ML-06D	CPT	3/4" PVC w/ Prepack Screen	Fugro	5702.34	1616.9	1,930,790.4	1,036,715.2	792.95	792.95	792.56	48.0	53.0	745.0	740.0	53.6	739.35
ML-06I	Geoprobe	1" PVC well	Terra Trace	5724.95	1614.44	1,930,813.0	1,036,712.9	792.81	792.84	792.15	23.3	42.5	769.5	750.3	44.0	748.81
ML-06S	Geoprobe	1" PVC well	Terra Trace	5727.68	1615.78	1,930,815.7	1,036,714.3	792.53	792.67	792.22	5.2	15.0	787.3	777.5	20.0	772.53
ML-07	CPT	3/4" PVC w/ Prepack Screen	Fugro	2067.04	6152.6	1,927,134.5	1,041,234.4	789.06	789.11	788.78	39.0	49.0	750.1	740.1	55.17	733.89
ML-08D	4" O.D. Wash Bore Rotary	1" PVC well	SEI	5849.17	1738.95	1,930,936.6	1,036,838.0	791.34	791.47	791.00	47.1	66.7	744.2	724.6	67.5	723.84
ML-08I	4" O.D. Wash Bore Rotary	1" PVC well	SEI	5855.74	1740.10	1,930,943.2	1,036,839.2	791.26	791.25	790.81	20.1	39.7	771.2	751.6	42.0	749.26
ML-08S	3 1/4 Hollow Stem Auger	1" PVC well	SEI	5852.81	1744.24	1,930,940.3	1,036,843.3	791.31	791.35	790.96	3.0	17.7	788.3	773.6	18.0	773.31
ML-09D	4" O.D. Wash Bore Rotary	1" PVC well	SEI	5768.14	1714.37	1,930,855.7	1,036,813.0	794.23	794.27	793.83	60.6	70.2	733.6	724.0	72.0	722.23
ML-09I	4" O.D. Wash Bore Rotary	1" PVC well	SEI	5762.25	1708.00	1,930,849.9	1,036,806.6	794.14	794.26	793.88	24.1	43.7	770.0	750.4	44.0	750.14
ML-09S	3 1/4 Hollow Stem Auger	1" PVC well	SEI	5775.72	1718.39	1,930,863.3	1,036,817.1	794.10	794.32	793.86	6.0	20.7	788.1	773.4	21.0	773.10
ML-10D	4" O.D. Wash Bore Rotary	1" PVC well	SEI	5583.88	1779.01	1,930,671.2	1,036,876.8	797.64	798.23	797.63	65.1	74.7	732.5	722.9	75.0	722.64
ML-10I	4" O.D. Wash Bore Rotary	1" PVC well	SEI	5578.74	1776.18	1,930,666.1	1,036,874.0	798.04	798.25	797.82	26.3	45.7	771.7	752.3	47.0	751.04
ML-10S	3 1/4 Hollow Stem Auger	1" PVC well	SEI	5578.65	1771.74	1,930,666.0	1,036,869.5	798.09	798.28	797.59	3.1	22.7	795.0	775.4	23.0	775.09
ML-11	Geoprobe	1" PVC well	Terra Trace	5554.10	1473.56	1,930,642.8	1,036,571.3	787.07	787.21	786.77	19.5	39.3	767.6	747.8	39.5	747.57
ML-11D	4" O.D. Wash Bore Rotary	1" PVC well	SEI	5549.95	1473.83	1,930,638.6	1,036,571.5	787.15	787.23	786.85	44.1	63.7	743.1	723.5	67.0	720.15
ML-12	4" O.D. Wash Bore Rotary	1" PVC well	SEI	5528.87	1654.65	1,930,616.7	1,036,752.2	791.21	791.40	791.02	19.1	38.7	772.1	752.5	40.0	751.21
ML-13	CPT	3/4" PVC well	Stratigraphics	5425.93	1946.16	1,930,512.5	1,037,043.3	800.74	800.78	800.33	37.4	47.4	763.3	753.3	48.0	752.74
ML-13S	CPT	3/4" PVC well	Stratigraphics	5423.58	1943.00	1,930,510.1	1,037,040.1	800.77	800.77	800.49	20.4	30.4	780.4	770.4	30.4	770.37
ML-14	CPT	1" PVC well	SEI	5610.50	1915.62	1,930,697.2	1,037,013.6	799.40	799.50	799.09	27.6	47.2	771.8	752.2	48.0	751.40
ML-15	CPT	3/4" PVC well	Stratigraphics	5296.34	2090.33	1,930,382.2	1,037,186.8	799.37	799.37	799.03	29.2	44.2	770.2	755.2	48.0	751.37
ML-15S	CPT	3/4" PVC well	Stratigraphics	5299.96	2090.52	1,930,385.8	1,037,187.1	799.48	799.49	799.09	15.7	25.7	783.8	773.8	25.7	773.78
ML-16	CPT	3/4" PVC well	Stratigraphics	5451.19	2219.74	1,930,536.5	1,037,317.0	798.29	798.30	797.93	35.5	45.5	762.8	752.8	47.1	751.19
ML-17	Geoprobe	1" PVC well	Terra Trace	5549.13	1250.98	1,930,638.8	1,036,348.7	780.92	780.97	780.52	17.6	37.2	763.3	743.7	37.5	743.42
ML-18	Geoprobe	1" PVC well	Terra Trace	5234.54	1369.22	1,930,323.7	1,036,465.5	769.57	770.04	769.71	5.0	19.8	764.6	749.8	20.0	749.57
ML-19	CPT	3/4" PVC well	Stratigraphics	5098.50	1948.54	1,930,185.0	1,037,044.2	793.08	793.13	792.72	20.0	30.0	773.1	763.1	44.0	749.08
ML-20	CPT	3/4" PVC well	Stratigraphics	5617.23	2054.70	1,930,703.3	1,037,152.7	797.78	797.82	797.39	40.0	50.0	757.8	747.8	51.0	746.78
ML-21	CPT	3/4" PVC well	Stratigraphics	5269.47	2377.56	1,930,354.0	1,037,474.0	793.75	793.79	793.35	30.0	45.0	763.8	748.8	49.5	744.25
ML-22	CPT	3/4" PVC well	SEI	5694.18	1848.37	1,930,781.2	1,036,946.7	792.89	792.89	792.43	27.5	32.5	765.4	760.4	35.9	756.99
ML-23	CPT	1" PVC well	SEI	5484.73	1814.64	1,930,571.9	1,036,912.0	797.65	797.65	797.21	17.0	31.7	780.7	766.0	32.7	764.95
ML-24	CPT	3/4" PVC well	SEI	5780.53	1910.08	1,930,867.2	1,037,008.8	788.09	788.09	787.65	18.0	23.0	770.1	765.1	39.5	748.59
ML-25D	3 1/4 Hollow Stem Auger	3/4" PVC well	SEI	5910.06	1838.47	1,930,997.1	1,036,937.8	787.12	787.12	786.67	62.5	72.5	724.6	714.6	72.5	714.62
ML-25I	4" O.D. Wash Bore Rotary	3/4" PVC well	SEI	5913.88	1834.55	1,931,000.9	1,036,933.9	787.43	787.43	786.94	40.0	45.0	747.4	742.4	45.0	742.43
ML-25S	4" O.D. Wash Bore Rotary	3/4" PVC well	SEI	5908.50	1835.48	1,930,995.5	1,036,934.8	787.40	787.40	786.90	27.0	32.0	760.4	755.4	32.0	755.40
ML-26I	CPT	3/4" PVC well	SEI	6243.26	1809.56	1,931,330.4	1,036,910.4	780.82	780.82	780.42	27.5	31.0	753.3	749.8	31.0	749.82
ML-26S	Casing Driven Only (No Cone)	3/4" PVC well	SEI	6245.90	1812.44	1,931,333.0	1,036,913.3	780.83	780.83	780.40	20.5	25.5	760.3	755.3	25.5	755.33
ML-27	CPT	3/4" PVC well	SEI	6068.72	1795.47	1,931,155.9	1,036,895.5	784.13	784.13	783.71	22.5	32.5	761.6	751.6	30.0	754.11
ML-28	CPT	3/4" PVC well	SEI	5649.46	2292.60	1,930,734.4	1,037,390.7	797.83	797.83	797.40	20.0	30.0	777.8	767.8	32.2	765.68
ML-29	CPT	3/4" PVC well	SEI	5747.18	2000.81	1,930,833.5	1,037,099.4	788.79	788.79	788.46	16.0	21.0	772.8	767.8	25.8	762.99
ML-29S	Casing Driven Only (No Cone)	3/4" PVC well	SEI	5747.41	1999.16	1,930,833.7	1,037,097.7	788.72	788.72	788.42	8.0	13.0	780.7	775.7	13.0	775.72
ML-30	CPT	3/4" PVC well	SEI	5753.73	2095.67	1,930,839.6	1,037,194.3	788.28	788.28	787.91	20.0	25.0	768.3	763.3	34.0	754.28
ML-31	CPT	3/4" PVC well	SEI	5761.04	2237.04	1,930,846.3	1,037,335.7	788.07	788.07	787.81	18.0	23.0	770.1	765.1	60.0	728.07
ML-32	CPT	3/4" PVC well	SEI	5641.53	2179.58	1,930,727.0	1,037,277.7	797.23	797.23	796.85	20.0	30.0	777.2	767.2	35.9	761.33
ML-33	CPT	3/4" PVC well	SEI	5972.98	2000.47	1,931,059.3	1,037,100.1	786.27	786.27	785.91	18.0	23.0	768.3	763.3	28.7	757.57
ML-34	CPT	3/4" PVC well	SEI	5982.62	2131.92	1,931,068.3	1,037,231.6	787.15	787.15	786.73	19.0	29.0	768.2	758.2	32.0	755.15
ML-36	CPT	3/4" PVC well	SEI	5899.46	2326.17	1,930,984.3	1,037,425.4	786.26	786.26	785.87	18.7	23.7	767.6	762.6	31.8	754.46
ML-37	CPT	3/4" PVC w/ Prepack Screen	Fugro	5181.83	1728.91	1,930,269.4	1,036,824.9	785.09	785.09		7.0	17.0	778.1	768.1	30.0	755.09
ML-38	CPT	3/4" PVC w/ Prepack Screen	Fugro	5191.48	1563.53	1,930,279.8	1,036,659.6	776.18	776.18		10.0	20.0	766.2	756.2	45.0	731.18
MW-204ES	Casing Driven Only (No Samples)	1" PVC well	Terra Trace	5732.14	1424.51	1,930,821.0	1,036,523.0	772.40	772.68	772.27	4.2	19.0	768.2	753.4	19.2	753.20
LDE-13	12" OD Wash Bore Roatary	6" Dia. Sch. 40 PVC Test Well	SEI	5502.99	1773.04	1,930,590.3	1,036,870.5	797.35	799.23	799.34	20	50	777.3	747.3	50	747.35

Notes
Survey data provided by Weaver Boos, Naperville, IL
For all CPT wells, the Mid-Valve elevation is the point at which depth to groundwater measurements are taken.
The Top of PVC elevation are point at which depth to groundwater measurements are taken in 2" PVC wells and larger.
Well s indicated as inaccessible will be resurveyed once snow and ice piles are removed.
Refer to Appendix B for well completion reports

Table 2
Summary of Recent Gas Monitoring Probe Results
Greenbrook School Nature and Extent Charaterization
Mallard Lake Landfill
AECOM Project No. 60139758

Probe	Date	Time of measurement	Static Pressure (inches H2O)	Methane (%)	Carbon Dioxide (%)	Oxygen (%)	Balance Gas (%)	Post Purge Pressure (inches H2O)	Depth to Water (bMV)	Elevation of Groundwater Surface (ft MSL)	Qualifier
ML-06D	8/13/2009	13:50	0.0	0.0	0.1	20.2	79.7	-18.4	37.55	755.01	
ML-06D	9/9/2009	12:37	0.2	0.0	0.6	18.8	80.6	-30.4	38.28	754.28	
ML-06I	8/13/2009	13:20	0.0	0.8	3.2	17.7	78.3	-17.6	35.55	756.60	
ML-06I	9/9/2009	12:33	0.2	0.7	7.0	12.6	79.7	-18.1	NM	NM	
ML-06S	8/13/2009	13:42	0.0	0.0	7.5	14.9	77.6	-7.3	Dry to 14.21	<778.01	
ML-06S	9/9/2009	12:42	0.1	0.0	7.9	10.4	81.7	-7.8	Dry to 14.35	<777.87	
ML-08D	8/13/2009	11:41	0.2	0.1	0.0	20.6	79.3	-10.1	38.80	752.20	
ML-08D	9/9/2009	12:25	0.2	0.0	0.1	20.3	79.6	-25.1	39.06	751.94	
ML-08I	8/13/2009	11:33	0.9	43.4	10.8	8.7	37.1	-7.4	32.40	758.41	
ML-08I	9/9/2009	12:19	1.3	43.8	11.4	8.2	36.6	-7.9	33.76	757.05	
ML-08S	8/13/2009	11:28	0.1	0.0	3.1	17.6	79.3	-3.4	7.84	783.12	
ML-08S	9/9/2009	12:15	0.2	0.0	2.9	17.7	79.0	-7.5	9.12	781.84	
ML-09D	8/13/2009	13:14	0.0	0.0	0.2	20.9	78.9	-18.0	48.18	745.65	
ML-09D	9/9/2009	13:10	0.0	0.0	0.5	19.9	79.6	-22.1	47.80	746.03	
ML-09I	8/13/2009	13:00	0.0	2.6	0.2	17.7	79.4	-16.1	35.10	758.88	
ML-09I	9/9/2009	13:15	0.2	4.5	0.8	13.0	81.7	-15.9	35.79	758.09	
ML-09S	8/13/2009	13:18	0.0	0.0	2.0	19.1	78.9	-8.0	9.10	784.76	
ML-09S	9/9/2009	13:05	0.1	0.0	2.8	16.8	80.4	-6.4	11.07	781.79	
ML-10D	8/1/2009	7:46	-7.6	0.0	0.3	20.3	79.4	-32.2	NM	NM	
ML-10D	8/2/2009	7:30	-4.1	0.0	0.3	20.3	79.4	-29.1	NM	NM	
ML-10D	8/3/2009	7:40	0.5	0.0	0.3	20.1	79.6	-34.8	NM	NM	
ML-10D	8/4/2009	7:29	0.0	0.0	0.2	20.3	79.5	-27.5	NM	NM	
ML-10D	8/5/2009	9:15	-17.9	0.0	0.3	19.8	79.9	-42.5	NM	NM	
ML-10D	8/6/2009	9:35	-11.4	0.0	0.2	19.9	79.9	-36.8	NM	NM	
ML-10D	8/7/2009	9:30	-13.7	0.0	0.4	19.7	79.8	-38.8	NM	NM	
ML-10D	8/8/2009	8:10	-13.4	0.0	0.4	19.8	79.8	-55.6	NM	NM	
ML-10D	8/9/2009	7:40	-0.2	0.0	0.3	20.2	79.5	-45.5	NM	NM	
ML-10D	8/10/2009	7:57	-0.9	0.0	0.2	20.3	79.5	-40.3	NM	NM	
ML-10D	8/11/2009	8:17	0.3	0.0	0.4	20.1	79.5	-52.4	NM	NM	
ML-10D	8/12/2009	10:13	-1.3	0.0	0.3	20.0	79.8	-38.3	NM	NM	
ML-10D	8/13/2009	7:20	-3.1	0.0	0.3	20.3	79.4	-49.8	52.50	745.13	
ML-10D	8/14/2009	7:44	-1.2	0.0	0.2	20.5	79.3	-48.3	NM	NM	
ML-10D	8/15/2009	8:41	0.0	0.0	0.0	20.5	79.5	-42.4	NM	NM	
0D	8/16/2009	7:54	-1.7	0.0	0.1	20.5	79.4	-29.7	NM	NM	
0D	8/17/2009	7:40	-2.3	0.0	0.2	20.4	79.4	-37.9	NM	NM	
ML-10D	8/18/2009	7:55	0.0	0.0	0.2	20.4	79.4	-41.1	NM	NM	
ML-10D	8/19/2009	11:24	-15.6	0.0	0.2	20.1	79.7	-47.3	NM	NM	
ML-10D	8/20/2009	10:15	-8.0	0.0	0.3	19.8	79.9	-42.1	NM	NM	
ML-10D	8/21/2009	9:11	-11.6	0.0	0.4	19.7	79.9	-45.9	NM	NM	
ML-10D	8/22/2009	6:59	-3.9	0.0	0.3	20.5	79.3	-56.4	NM	NM	
ML-10D	8/23/2009	8:40	-11.4	0.0	0.5	19.7	79.8	-57.0	NM	NM	
ML-10D	8/24/2009	12:01	-16.6	0.0	0.2	20.0	79.8	-59.2	NM	NM	
ML-10D	8/25/2009	10:02	-10.0	0.0	0.2	20.6	79.2	-48.7	NM	NM	
ML-10D	8/26/2009	8:45	-12.3	0.0	0.4	20.4	79.6	-38.6	NM	NM	
ML-10D	8/27/2009	9:19	-10.6	0.0	0.5	19.5	80.0	-33.8	NM	NM	
ML-10D	8/28/2009	9:24	-16.1	0.0	0.5	19.5	80.0	-41.0	NM	NM	
ML-10D	8/29/2009	8:53	-18.0	0.0	0.5	19.5	80.0	-53.5	NM	NM	
ML-10D	8/30/2009	9:09	-12.8	0.0	0.3	20.1	79.6	-49.7	NM	NM	
ML-10D	8/31/2009	9:16	-10.2	0.0	0.2	20.2	79.6	-43.3	NM	NM	
ML-10D	9/1/2009	9:27	-13.6	0.0	0.4	19.9	79.7	-53.3	NM	NM	
ML-10D	9/2/2009	9:39	-13.2	0.0	0.4	19.9	79.7	-34.5	NM	NM	
ML-10D	9/3/2009	9:34	-12.0	0.0	0.4	19.6	80.0	-63.1	Nm	NM	
ML-10D	9/4/2009	9:31	-13.8	0.0	0.4	20.2	79.4	-56.3	NM	NM	
ML-10D	9/5/2009	8:40	-16.2	0.0	0.5	20.0	79.5	-46.0	NM	NM	
ML-10D	9/6/2009	10:04	-14.6	0.0	0.5	20.3	79.2	-55.9	NM	NM	
ML-10D	9/7/2009	13:20	-11.7	0.0	0.7	19.8	79.5	-40.2	NM	NM	
ML-10D	9/8/2009	14:40	-11.9	0.0	0.5	19.5	80.0	-35.6	50.45	747.18	
ML-10D	9/9/2009	10:25	-6.2	0.0	0.3	20.6	79.1	-27.8	NM	NM	
ML-10D	9/10/2009	10:16	-13.8	0.0	0.4	20.2	79.4	-42.8	NM	NM	
ML-10D	9/11/2009	8:45	-0.1	0.0	0.4	20.0	79.6	-36.9	NM	NM	
ML-10D	9/12/2009	7:22	-9.4	0.0	0.5	19.9	79.6	-37.9	NM	NM	
ML-10D	9/13/2009	7:05	-6.5	0.0	0.3	20.3	79.5	-33.5	NM	NM	
ML-10D	9/14/2009	9:55	-7.3	0.0	0.3	20.2	79.5	-35.2	NM	NM	
ML-10D	9/15/2009	10:00	-6.4	0.0	0.4	20.6	79.0	-49.4	NM	NM	
ML-10D	9/16/2009	9:15	-8.5	0.0	0.4	20.2	79.4	-35.7	NM	NM	
ML-10I	8/1/2009	7:49	0.0	9.3	1.0	17.9	71.8	-17.8	NM	NM	
ML-10I	8/2/2009	7:33	0.0	8.5	1.1	17.9	72.5	-19.1	NM	NM	
ML-10I	8/3/2009	7:43	0.0	11.0	1.3	17.2	70.5	-19.2	NM	NM	
ML-10I	8/4/2009	7:33	0.0	11.0	1.2	17.5	70.3	-21.2	NM	NM	
ML-10I	8/5/2009	9:10	0.0	7.8	1.0	18.0	73.2	-21.9	NM	NM	
ML-10I	8/6/2009	9:30	0.0	7.7	1.0	18.1	79.2	-19.4	NM	NM	Start portable hose extraction
ML-10I	8/6/2009	18:21	-4.5	0.5	0.0	20.6	78.9	-27.2	NM	NM	End portable hose extraction
0I	8/7/2009	9:25	0.0	4.9	0.5	18.9	75.5	-19.8	NM	NM	Start portable hose extraction
I	8/7/2009	18:34	-0.6	9.6	0.7	18.1	71.6	-19.9	NM	NM	End portable hose extraction
0I	8/8/2009	8:05	0.0	35.9	2.7	10.5	51.5	-35.2	NM	NM	Start portable hose extraction
ML-10I	8/8/2009	16:45	-14.2	6.0	0.3	19.5	74.2	-18.9	NM	NM	End portable hose extraction
ML-10I	8/9/2009	7:35	0.1	16.1	1.3	16.3	66.3	-25.1	NM	NM	Start portable hose extraction

Table 2
Summary of Recent Gas Monitoring Probe Results
Greenbrook School Nature and Extent Charaterization
Mallard Lake Landfill
AECOM Project No. 60139758

Probe	Date	Time of measurement	Static Pressure (inches H2O)	Methane (%)	Carbon Dioxide (%)	Oxygen (%)	Balance Gas (%)	Post Purge Pressure (inches H2O)	Depth to Water (bMV)	Elevation of Groundwater Surface (ft MSL)	Qualifier
ML-10I	8/9/2009	17:33	-10.1	0.0	0.0	20.7	79.3	-34.0	NM	NM	End portable hose extraction
ML-10I	8/10/2009	7:50	0.1	30.6	2.3	12.0	55.0	-32.3	NM	NM	Start portable hose extraction
ML-10I	8/10/2009	17:18	-4.5	0.7	0.1	21.1	78.2	-23.8	NM	NM	End portable hose extraction
ML-10I	8/11/2009	8:13	0.0	10.1	0.8	18.1	71.0	-0.4	NM	NM	Start portable hose extraction
ML-10I	8/11/2009	17:20	-15.7	6.3	0.4	19.7	73.7	-19.9	NM	NM	End portable hose extraction
ML-10I	8/12/2009	10:37	0.3	11.4	1.0	17.2	70.3	-21.7	NM	NM	Start portable hose extraction
ML-10I	8/12/2009	17:11	-9.4	0.0	0.0	20.6	79.4	-24.1	NM	NM	End portable hose extraction
ML-10I	8/13/2009	7:36	0.0	9.8	0.7	18.3	71.2	-19.5	23.70	774.12	
ML-10I	8/13/2009	7:30	0.0	9.8	0.7	18.3	71.2	-19.5	NM	NM	Start portable hose extraction
ML-10I	8/13/2009	17:06	16.2	3.3	0.2	20.4	79.4	16.2	NM	NM	End portable hose extraction
ML-10I	8/14/2009	7:49	0.0	14.2	1.0	17.1	67.7	-19.4	NM	NM	Start portable hose extraction
ML-10I	8/14/2009	11:19	0.0	5.2	0.4	19.8	74.6	-17.1	NM	NM	End portable hose extraction
ML-10I	8/15/2009	8:46	0.0	17.5	1.3	16.0	65.2	-14.4	NM	NM	Start portable hose extraction
ML-10I	8/15/2009	16:25	0.0	9.7	0.6	18.6	71.1	-14.5	NM	NM	End portable hose extraction
ML-10I	8/16/2009	7:49	0.2	15.3	1.4	16.5	66.8	-16.3	NM	NM	Start portable hose extraction
ML-10I	8/16/2009	15:05	-3.5	3.1	0.3	20.2	76.4	-22.0	NM	NM	End portable hose extraction
ML-10I	8/17/2009	7:44	-15.6	20.1	1.4	15.2	63.3	-15.6	NM	NM	Start portable hose extraction
ML-10I	8/17/2009	16:52	-2.8	1.8	0.2	20.4	77.6	-18.3	NM	NM	End portable hose extraction
ML-10I	8/18/2009	8:00	0.0	22.8	1.7	14.5	61.0	-15.2	NM	NM	Start portable hose extraction
ML-10I	8/18/2009	16:46	-4.6	3.5	0.3	17.9	76.4	-21.9	NM	NM	End portable hose extraction
ML-10I	8/19/2009	11:20	0.0	25.9	1.6	13.7	58.8	-12.9	NM	NM	End portable hose extraction
ML-10I	8/19/2009	15:30	-0.6	14.6	0.8	17.2	67.4	-13.8	NM	NM	End portable hose extraction
ML-10I	8/20/2009	10:13	0.0	23.8	1.7	12.8	61.7	-15.7	NM	NM	Start portable hose extraction
ML-10I	8/20/2009	17:18	-1.1	2.6	0.3	20.1	77.0	-20.6	NM	NM	End portable hose extraction
ML-10I	8/21/2009	9:08	0.0	20.7	1.7	14.6	63.0	-13.2	NM	NM	Start portable hose extraction
ML-10I	8/21/2009	16:15	-3.1	0.8	0.1	20.5	78.6	-23.3	NM	NM	End portable hose extraction
ML-10I	8/22/2009	7:03	-0.4	19.9	1.6	15.2	63.1	-21.4	NM	NM	Start portable hose extraction
ML-10I	8/22/2009	18:15	-3.2	4.5	0.5	19.4	75.6	-25.6	NM	NM	End portable hose extraction
ML-10I	8/23/2009	8:33	0.0	28.3	2.0	12.9	56.9	-15.0	NM	NM	Start portable hose extraction
ML-10I	8/23/2009	17:30	-1.1	10.6	0.7	17.0	71.7	-22.6	NM	NM	End portable hose extraction
ML-10I	8/24/2009	11:57	0.6	50.1	3.5	7.1	38.6	-14.4	NM	NM	Start portable hose extraction
ML-10I	8/24/2009	15:20	-6.1	0.0	0.0	20.8	79.2	-17.5	NM	NM	End portable hose extraction
ML-10I	8/25/2009	9:55	0.2	35.3	2.4	11.9	50.1	-18.6	NM	NM	Start portable hose extraction
0I	8/25/2009	15:10	-1.5	9.5	0.6	18.4	71.5	-18.9	NM	NM	End portable hose extraction
0I	8/26/2009	8:51	0.8	63.0	4.1	5.0	27.9	-17.2	NM	NM	Start portable hose extraction
-10I	8/26/2009	14:15	-6.0	2.9	0.3	19.6	77.2	-26.7	NM	NM	End of portable hose extraction
ML-10I	8/27/2009	9:24	0.6	53.1	3.6	7.0	36.3	-15.8	NM	NM	
ML-10I	8/27/2009	14:45	-2.3	3.1	0.3	19.5	77.1	-25.0	NM	NM	
ML-10I	8/28/2009	9:30	0.2	45.6	3.3	8.6	42.5	-18.8	NM	NM	
ML-10I	8/28/2009	14:40	-1.1	24.9	1.7	14.0	59.4	-19.8	NM	NM	
ML-10I	8/29/2009	8:57	0.8	39.5	2.8	9.1	48.6	-13.6	NM	NM	Start portable hose extraction
ML-10I	8/29/2009	15:30	-1.5	31.2	2.1	12.1	54.6	-14.3	NM	NM	End portable hose extraction
ML-10I	8/30/2009	9:13	0.0	52.3	3.7	6.6	37.4	-13.4	NM	NM	Start portable hose extraction
ML-10I	8/30/2009	15:08	-0.8	12.7	1.8	12.5	19.0	-18.7	NM	NM	End portable hose extraction
ML-10I	8/31/2009	9:21	0.3	53.3	3.6	7.0	36.1	-14.1	NM	NM	Start portable hose extraction
ML-10I	8/31/2009	14:45	-2.0	7.9	0.6	18.4	73.1	-23.4	NM	NM	End portable hose extraction
ML-10I	9/1/2009	9:31	1.0	53.7	2.8	7.8	35.7	-15.8	NM	NM	Start portable hose extraction
ML-10I	9/1/2009										End portable hose extraction
ML-10I	9/1/2009	14:50	-1.0	10.0	0.7	17.6	71.7	-21.1	NM	NM	
ML-10I	9/2/2009	9:42	0.1	51.1	3.7	6.2	39.0	-12.6	NM	NM	Start portable hose extraction
ML-10I	9/2/2009	14:40	-0.2	18.4	1.2	16.1	64.3	-14.8	NM	NM	End portable hose extraction
ML-10I	9/3/2009	14:43	-0.3	26.6	1.7	13.8	57.9	-15.5	NM	NM	
ML-10I	9/3/2009	9:41	0.4	50.2	3.6	6.8	39.4	-13.0	NM	NM	
ML-10I	9/4/2009	9:23	0.4	48.6	3.8	6.9	37.5	-17.6	NM	NM	Start portable hose extraction
ML-10I	9/4/2009	14:46	-1.5	22.8	1.4	14.7	61.1	-16.9	NM	NM	End portable hose extraction
ML-10I	9/5/2009	8:45	0.1	51.4	3.7	6.5	38.4	-13.2	NM	NM	Start portable hose extraction
ML-10I	9/5/2009	16:20	-1.9	23.0	1.4	14.6	61.0	-15.6	NM	NM	End portable hose extraction
ML-10I	9/6/2009	9:58	0.2	52.2	4.2	6.1	37.3	-14.3	NM	NM	Start portable hose extraction
ML-10I	9/6/2009	15:00	-1.3	22.5	1.5	13.9	61.0	-15.7	NM	NM	End portable hose extraction
ML-10I	9/7/2009	13:24	0.2	55.5	3.7	5.6	35.2	-11.0	NM	NM	
ML-10I	9/8/2009	14:45	0.4	56.4	4.0	5.7	33.9	-10.4	24.91	772.91	
ML-10I	9/9/2009	10:29	0.3	33.6	2.8	11.6	52.0	-11.5	NM	NM	Start portable hose extraction
ML-10I	9/9/2009	15:06	0.3	18.3	1.5	15.9	64.3	-11.8	NM	NM	End portable hose extraction
ML-10I	9/10/2009	10:20	0.2	21.0	1.7	14.6	52.7	-16.3	NM	NM	Start portable hose extraction
ML-10I	9/10/2009	14:50	-0.2	12.7	0.8	17.3	69.7	-15.4	NM	NM	End portable hose extraction
ML-10I	9/11/2009	8:50	0.1	21.4	1.6	14.7	62.3	-9.4	NM	NM	Start portable hose extraction
ML-10I	9/11/2009	15:24	-0.3	2.5	0.2	20.1	77.2	-9.4	NM	NM	End portable hose extraction
ML-10I	9/12/2009	7:28	0.0	19.7	1.5	14.8	64.0	-8.3	NM	NM	Start portable hose extraction
ML-10I	9/12/2009	17:05	-0.4	2.1	0.1	20.1	77.8	-10.0	NM	NM	End portable hose extraction
ML-10I	9/13/2009	7:10	0.0	22.4	1.7	14.3	61.6	-9.0	NM	NM	Start portable hose extraction
ML-10I	9/13/2009	16:00	-0.7	3.0	0.2	19.8	77.0	-9.4	NM	NM	End portable hose extraction
ML-10I	9/14/2009	10:00	0.0	30.0	2.4	12.6	55.0	-13.5	NM	NM	Start portable hose extraction
0I	9/14/2009	14:50	-0.4	5.4	0.4	19.2	66.0	-24.6	NM	NM	End portable hose extraction
I	9/15/2009	9:55	0.1	26.4	2.0	13.8	57.8	-11.4	NM	NM	Start portable hose extraction
0I	9/15/2009	14:35	-1.1	0.6	0.0	20.9	78.5	-10.7	NM	NM	End portable hose extraction
ML-10I	9/16/2009	9:20	0.0	30.0	2.5	12.4	56.1	-13.5	NM	NM	Flow measured into probe through one way valve
ML-10I	9/16/2009	14:05	-1.4	0.8	0.1	20.6	78.5	-15.6	NM	NM	Flow measured into probe through one way valve

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Greenbrook School Nature and Extent Charaterization
Mallard Lake Landfill
AECOM Project No. 60139758

Probe	Date	Time of measurement	Static Pressure (inches H2O)	Methane (%)	Carbon Dioxide (%)	Oxygen (%)	Balance Gas (%)	Post Purge Pressure (inches H2O)	Depth to Water (bMV)	Elevation of Groundwater Surface (ft MSL)	Qualifier
ML-10S	8/13/2009	12:30	0.0	0.0	6.2	6.1	87.7	-6.9	8.22	789.37	
ML-10S	9/8/2009	14:50	1.8	0.0	6.3	6.1	87.6	-11.6	9.28	788.31	
ML-11	8/14/2009	10:04	-0.5	0.0	0.4	20.3	79.3	-23.9	10.62	776.15	
ML-11D	8/14/2009	10:00	0.0	0.0	0.0	20.5	79.6	-26.5	43.00	743.85	
ML-11D	9/9/2009	13:57	0.3	0.0	0.0	20.5	79.5	-21.0	39.71	747.14	
ML-11I	9/9/2009	13:52	0.2	0.0	0.4	20.4	79.2	-17.4	12.72	774.05	
ML-12	8/14/2009	10:28	0.1	0.0	0.3	20.3	79.4	-18.9	14.01	777.01	
ML-12	9/9/2009	12:50	0.1	0.0	0.2	20.2	79.6	-23.9	14.96	776.06	
ML-13I	8/14/2009	10:38	3.5	23.2	2.3	2.7	71.8	-19.8	43.41	756.92	
ML-13I	8/21/2009	13:50	5.4	24.0	2.6	1.0	72.4	-19.6	NM	NM	
ML-13I	9/8/2009	14:25	2.8	24.6	2.5	0.0	72.9	-11.5	45.14	755.19	
ML-13S	8/14/2009	10:45	3.1	0.0	0.0	20.3	79.7	-19.1	21.02	779.47	
ML-13S	9/8/2009	14:30	0.0	0.0	0.0	20.0	80.0	-8.3	21.91	778.58	
ML-14	8/13/2009	11:57	-3.9	33.9	2.3	2.5	61.3	-22.8	30.25	768.84	
ML-14	8/21/2009	14:00	-0.8	26.3	2.1	5.7	65.9	-22.6	NM	NM	
ML-14	9/9/2009	11:41	-12.8	31.1	2.6	2.7	63.6	-31.5	30.46	768.63	
ML-15I	8/13/2009	10:52	0.1	0.0	0.1	20.3	79.6	-53.0	18.35	780.68	
ML-15I	9/8/2009	14:15	0.1	0.0	0.3	19.8	79.9	-46.5	19.25	779.78	
ML-15S	8/13/2009	14:52	0.0	0.0	0.1	20.9	79.0	-25.3	10.15	788.94	
ML-15S	9/8/2009	14:19	0.0	0.0	0.1	20.2	79.7	-14.4	10.42	788.67	
ML-16	8/13/2009	14:58	0.0	0.0	0.3	20.5	79.2	-10.6	34.42	763.51	
ML-16	9/9/2009	13:01	0.1	0.0	0.3	20.0	79.7	-11.6	36.27	761.66	
ML-17	8/14/2009	9:48	0.0	1.1	2.0	7.2	89.6	-7.9	26.40	754.12	
ML-17	9/9/2009	14:05	0.3	0.0	1.7	17.6	80.7	-11.2	26.98	753.54	
ML-18	8/14/2009	10:12	0.0	0.0	0.0	20.6	79.4	-8.7	6.71	763.00	
ML-18	9/9/2009	13:45	0.2	0.0	0.3	20.3	79.4	-8.1	6.39	763.32	
ML-19	8/14/2009	11:12	-1.3	0.0	0.0	20.8	79.2	-7.8	19.08	773.64	
ML-19	9/9/2009	13:15	0.3	0.0	0.1	20.4	79.5	-20.6	20.88	771.84	
ML-20	8/13/2009	12:05	0.3	0.2	0.3	18.6	80.9	-50.7	39.70	757.69	
ML-20	9/9/2009	11:47	0.4	1.2	0.8	11.4	86.6	-52.1	40.34	757.05	
ML-21	8/14/2009	11:02	0.2	0.0	0.2	20.4	79.4	-39.6	31.0	762.35	
ML-21	9/9/2009	13:09	-1.7	0.0	0.2	19.6	80.2	-24.3	31.01	762.34	
ML-22	8/13/2009	11:48	0.2	0.0	0.2	19.8	79.9	-41.6	24.94	767.49	
?2	9/9/2009	11:35	0.1	0.0	0.1	20.3	79.7	-22.5	25.22	767.21	
;3	7/31/2009	8:43	-7.6	0.0	0.2	20.9	78.9	-17.6	NM	M	Start portable hose extraction
ML-23	7/31/2009	17:05	-6.0	0.0	0.0	20.9	79.1	-14.5	NM	NM	End portable hose extraction
ML-23	8/1/2009	7:52	-0.1	0.0	0.2	20.8	79.1	-9.3	NM	NM	Start portable hose extraction
ML-23	8/1/2009	16:10	-11.4	9.4	2.8	12.2	75.5	-16.5	NM	NM	End portable hose extraction
ML-23	8/2/2009	7:36	0.0	0.0	0.2	20.8	79.0	-9.3	NM	NM	Start portable hose extraction
ML-23	8/2/2009	16:33	-5.8	0.0	0.0	21.1	78.9	NM	NM	NM	End portable hose extraction
ML-23	8/3/2009	7:55	0.0	0.0	0.0	20.7	79.3	-11.8	NM	NM	Start portable hose extraction
ML-23	8/3/2009	16:40	-4.9	0.0	0.0	21.1	78.9	-13.9	NM	NM	End portable hose extraction
ML-23	8/4/2009	7:36	0.0	0.0	0.2	20.6	79.2	-14.6	NM	NM	Start portable hose extraction
ML-23	8/4/2009	17:08	-22.4	0.0	0.0	21.2	78.7	-24.2	NM	NM	End portable hose extraction
ML-23	8/5/2009	18:55	-3.0	0.0	0.0	21.2	78.8	-11.9	NM	NM	Start portable hose extraction
ML-23	8/5/2009	9:05	0.0	0.0	0.1	20.6	79.3	-12.9	NM	NM	End portable hose extraction
ML-23	8/6/2009	9:25	-0.1	0.0	0.2	20.6	79.2	-16.6	NM	NM	
ML-23	8/7/2009	9:35	0.0	0.0	0.3	20.2	79.5	-13.1	NM	NM	
ML-23	8/8/2009	8:15	0.2	0.0	0.4	20.2	79.4	-14.7	NM	NM	
ML-23	8/9/2009	7:43	-0.1	0.6	0.4	19.4	79.5	-12.8	NM	NM	
ML-23	8/10/2009	8:01	0.1	0.0	0.2	20.5	79.3	-13.2	NM	NM	
ML-23	8/11/2009	8:24	-0.1	0.5	0.3	19.9	79.3	-13.3	NM	NM	
ML-23	8/12/2009	10:33	0.1	0.0	0.2	20.4	79.4	-19.6	NM	NM	
ML-23	8/13/2009	7:35	0.0	0.0	0.2	20.7	79.1	-9.8	19.32	777.89	
ML-23	8/14/2009	8:00	0.0	0.0	0.2	20.7	79.1	-11.2	NM	NM	
ML-23	8/15/2009	8:59	0.0	0.0	0.2	20.6	79.2	-15.4	NM	NM	
ML-23	8/16/2009	7:45	0.0	0.4	0.2	20.0	79.4	-16.8	NM	NM	
ML-23	8/17/2009	7:55	-0.9	1.2	0.5	18.9	79.4	-12.3	NM	NM	
ML-23	8/18/2009	8:15	-3.1	6.3	2.6	11.8	79.2	-18.4	NM	NM	
ML-23	8/19/2009	11:42	-3.0	10.4	3.6	6.6	79.4	-14.1	NM	NM	
ML-23	8/20/2009	10:08	1.1	1.4	0.6	18.3	79.5	-9.7	NM	NM	
ML-23	8/21/2009	9:03	-0.8	4.8	1.8	14.1	79.3	-10.9	NM	NM	
ML-23	8/22/2009	7:14	-2.7	0.0	0.1	20.8	79.1	-12.7	NM	NM	
ML-23	8/23/2009	8:27	0.0	0.0	0.0	20.5	79.4	-10.1	NM	NM	
ML-23	8/24/2009	11:51	0.3	0.0	0.0	20.5	79.5	-13.3	NM	NM	
ML-23	8/25/2009	9:51	0.0	0.0	0.0	20.6	79.4	-8.3	NM	NM	
ML-23	8/26/2009	8:55	-2.0	0.0	0.0	20.4	79.6	-14.8	NM	NM	
ML-23	8/27/2009	9:09	-4.0	0.0	0.0	20.2	79.8	-15.4	NM	NM	
ML-23	8/28/2009	9:20	-1.2	0.0	0.0	20.3	79.7	-13.3	NM	NM	
ML-23	8/29/2009	8:48	0.0	0.1	0.1	20.3	79.5	-11.6	NM	NM	
ML-23	8/30/2009	9:04	0.0	0.0	0.0	20.6	79.4	-9.3	NM	NM	
ML-23	8/31/2009	9:10	-0.8	0.0	0.0	20.6	79.4	-11.7	NM	NM	
?3	9/1/2009	9:05	0.4	0.0	0.0	20.4	79.6	-13.7	NM	NM	
	9/2/2009	9:35	-1.1	0.0	0.2	20.3	79.5	-10.9	NM	NM	
ML-23	9/3/2009	9:23	-0.1	0.0	0.0	20.5	79.5	-4.8	NM	NM	
ML-23	9/4/2009	9:19	0.0	0.0	0.0	20.7	79.3	-15.7	NM	NM	
ML-23	9/5/2009	8:52	-5.2	2.3	1.0	16.2	80.5	-17.6	NM	NM	

Table 2
Summary of Recent Gas Monitoring Probe Results
Greenbrook School Nature and Extent Charaterization
Mallard Lake Landfill
AECOM Project No. 60139758

Probe	Date	Time of measurement	Static Pressure (inches H2O)	Methane (%)	Carbon Dioxide (%)	Oxygen (%)	Balance Gas (%)	Post Purge Pressure (inches H2O)	Depth to Water (bMV)	Elevation of Groundwater Surface (ft MSL)	Qualifier
ML-23	9/6/2009	9:50	-2.0	0.0	0.1	20.8	79.1	-19.1	NM	NM	
ML-23	9/7/2009	13:16	-0.8	0.0	0.1	20.6	79.3	-10.7	NM	NM	
ML-23	9/8/2009	14:35	-0.5	0.0	0.2	20.0	79.8	-9.5	19.84	777.37	
ML-23	9/9/2009	10:33	0.1	0.0	0.0	20.8	79.2	-12.0	NM	NM	
ML-23	9/10/2009	10:12	-0.2	0.0	0.1	20.7	79.2	-17.8	NM	NM	
ML-23	9/11/2009	8:40	0.0	0.0	0.1	20.3	79.6	-10.5	NM	NM	
ML-23	9/12/2009	7:15	-0.5	0.0	0.2	20.2	79.6	-10.8	NM	NM	
ML-23	9/13/2009	7:00	-0.2	0.0	0.2	20.4	79.4	-10.3	NM	NM	
ML-23	9/14/2009	9:50	-0.6	0.0	0.4	20.1	79.5	-13.6	NM	NM	
ML-23	9/15/2009	9:51	0.0	0.0	0.0	21.1	78.9	-7.9	NM	NM	
ML-23	9/16/2009	9:10	0.0	0.0	0.2	20.5	79.3	-15.8	NM	NM	
ML-24	8/13/2009	11:04	0.2	0.0	0.1	20.2	79.7	-44.2	17.65	770.00	
ML-24	9/9/2009	10:45	0.1	0.0	1.3	17.5	81.2	-96.4	18.06	779.59	
ML-25D	8/13/2009	11:08	0.2	0.0	0.2	20.0	79.8	-47.9	36.45	750.22	
ML-25I	8/13/2009	11:13	0.2	0.0	0.2	20.2	79.6	-72.2	14.68	772.26	
ML-25I	9/9/2009	10:28	0.2	0.0	0.2	20.3	79.5	-56.2	14.84	772.10	
ML-25S	8/13/2009	11:20	0.2	0.0	0.1	20.4	79.5	-51.6	Dry to 13.45	<773.45	
ML-25S	9/9/2009	10:33	0.1	0.0	0.3	20.1	79.6	-51.4	Dry to 13.46	<773.44	
ML-26I	8/13/2009	10:12	0.0	0.0	0.0	20.7	79.3	-14.7	14.54	765.88	
ML-26I	9/9/2009	10:10	0.1	0.0	0.1	20.6	79.3	-32.8	14.81	765.61	
ML-26S	8/13/2009	10:20	0.0	0.0	0.0	20.7	79.3	-27.6	14.41	765.99	
ML-26S	9/9/2009	10:15	0.1	0.0	0.2	20.5	79.3	-38.8	14.51	765.89	
ML-27	8/13/2009	10:00	0.0	0.0	0.0	20.4	79.6	-56.8	16.14	767.57	
ML-27	9/9/2009	10:21	0.1	0.0	0.1	20.5	79.4	-44.4	16.11	767.60	
ML-28	8/13/2009	12:15	0.1	0.0	0.3	19.6	79.9	-66.5	16.17	781.23	
ML-28	9/9/2009	12:02	0.3	0.0	0.6	19.3	80.1	-95.4	16.25	781.15	
ML-29	8/13/2009	10:49	0.1	1.7	1.8	11.6	84.9	-33.6	15.31	773.15	
ML-29	9/9/2009	10:52	0.1	0.0	2.6	7.6	88.8	-38.6	15.61	772.87	
ML-29S	8/13/2009	10:55	0.0	0.0	0.0	20.8	79.2	-17.6	1.75	786.67	
ML-29S	9/9/2009	10:57	0.0	0.0	0.1	20.3	79.6	-37.7	4.09	784.33	
ML-30	8/13/2009	10:44	0.3	0.0	0.0	20.4	79.6	-64.4	10.95	776.96	
ML-30	9/9/2009	11:02	0.3	0.0	0.3	20.0	79.7	-82.9	11.04	776.87	
ML-31	8/13/2009	10:30	0.0	0.0	0.0	20.9	79.2	-10.8	14.48	773.33	
1	9/9/2009	11:08	0.0	0.0	0.1	20.4	79.5	-26.7	14.55	773.26	
2	8/14/2009	9:23	5.3	0.0	2.8	0.1	97.1	-29.1	19.32	777.53	
ML-32	9/9/2009	11:53	23.5	0.1	2.7	NM	NM	-1.5	21.60	775.25	
ML-33	8/13/2009	9:52	0.0	0.0	0.1	20.2	79.6	-33.3	13.68	772.23	
ML-33	9/9/2009	11:27	0.2	0.0	0.2	20.1	79.7	-70.0	14.37	771.54	
ML-34	8/13/2009	9:47	-0.3	0.0	0.0	20.3	79.6	-50.4	19.32	767.41	
ML-34	9/9/2009	11:22	-0.6	0.0	2.0	13.3	84.7	-83.4	19.03	767.70	
ML-36	8/13/2009	9:10	0.0	0.0	0.4	20.4	79.2	-4.8	20.60	765.27	
ML-36	9/9/2009	11:15	4.7	0.0	4.6	NM	NM	-4.2	20.43	765.44	
MW-204ES	8/14/2009	9:40	0.0	0.0	1.5	19.3	79.2	-6.9	14.14	758.13	
MW-204ES	9/11/2009	8:30	0.0	22.6	7.8	1.7	67.9	-17.2	15.72	756.55	

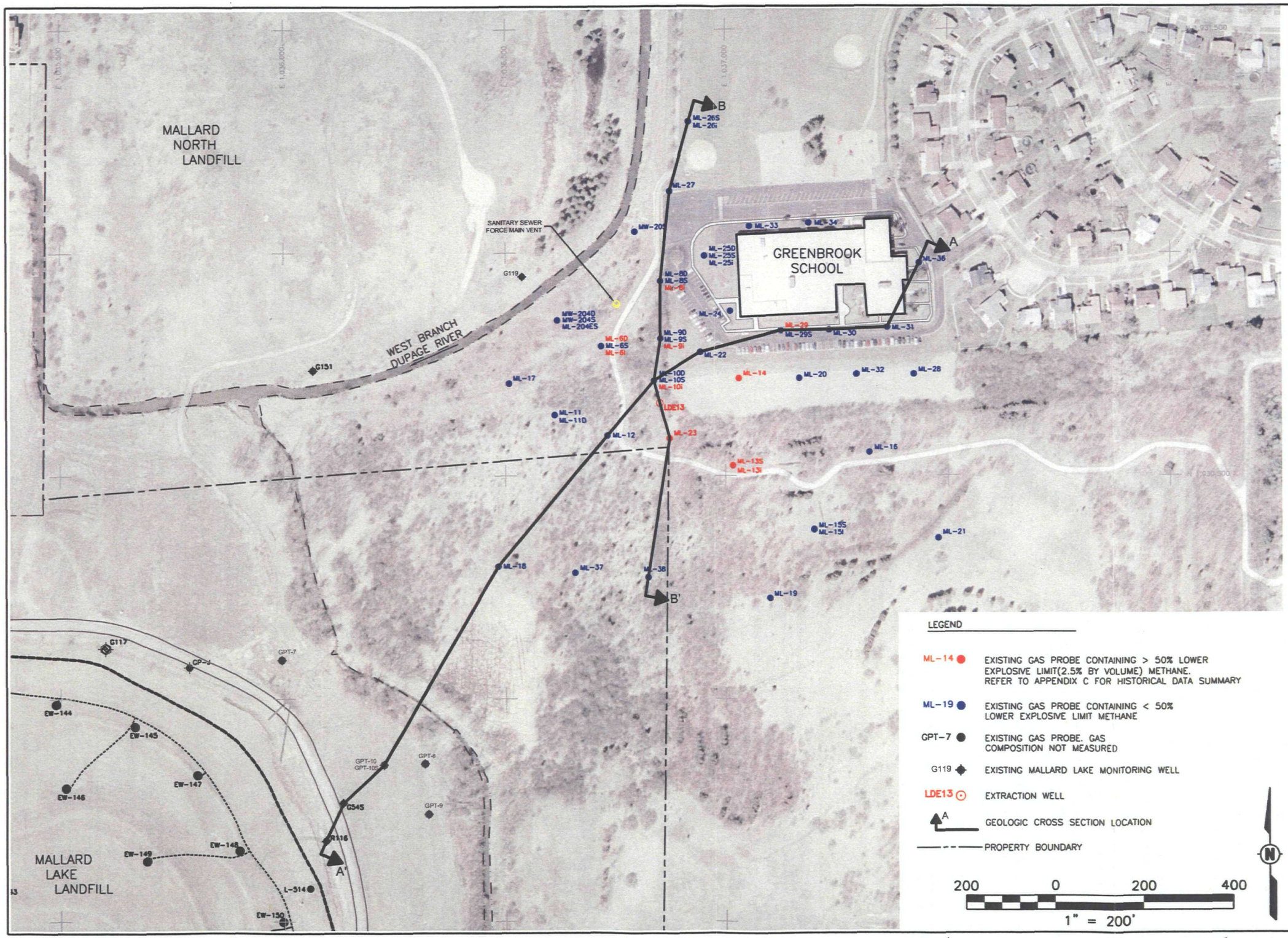
Notes:
NM - Not measured
ND - Not determined
bMV - Below mid-valve. The midvalve is where water level measurements are taken
ft MSL - Feet above mean sea level

Summa Cai nitoring Results
Greenbrook School Na ıd Extent Characterization
Mallard Lake Landfill
AECOM Project No. 60139758

Constituent	Units	IA-1	IA1-DUP	IA2	OA-1	OA2	SS1	SS2	SS3	SS4	ML-29 RESAMPLE
Acetone	PPBv	12.	10.	8.4	2.7	2.7	100.	14.	15.	16.	7.4
Benzene	PPBv	0.25	0.23	0.25	0.10	0.10	0.87	<0.10	0.07	0.17	0.11
Benzyl Chloride	PPBv	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.10	<0.04	<0.04	<0.10
Bromodichloromethane	PPBv	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.10	<0.04	<0.04	<0.10
Bromoform	PPBv	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.10	<0.04	<0.04	<0.10
Bromomethane	PPBv	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.10	<0.04	<0.04	<0.10
1,3-Butadiene	PPBv	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.10	<0.04	<0.04	<0.10
2-Butanone (MEK)	PPBv	1.1	0.95	0.56	0.19	0.50	14.	2.8	3.1	1.3	1.7
Carbon Disulfide	PPBv	<0.04	<0.04	<0.04	<0.04	<0.04	0.09	<0.10	0.10	0.08	0.73
Carbon Tetrachloride	PPBv	0.09	0.08	0.08	0.08	0.08	0.07	<0.10	0.06	0.07	<0.10
Chlorobenzene	PPBv	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.10	<0.04	<0.04	<0.10
Chlorodibromomethane	PPBv	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.10	<0.04	<0.04	<0.10
Chloroethane	PPBv	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.10	<0.04	<0.04	<0.10
Chloroform	PPBv	<0.04	<0.04	0.05	<0.04	<0.04	0.34	<0.10	<0.04	<0.04	<0.10
Chloromethane	PPBv	0.76	0.70	0.55	0.53	0.49	<0.04	<0.10	<0.04	0.14	0.20
Cyclohexane	PPBv	0.10	0.09	0.12	<0.04	<0.04	0.38	<0.10	<0.04	<0.04	<0.10
1,2-Dibromoethane	PPBv	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.10	<0.04	<0.04	<0.10
1,2-Dichlorobenzene	PPBv	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.10	<0.04	<0.04	<0.10
1,3-Dichlorobenzene	PPBv	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.10	<0.04	<0.04	<0.10
1,4-Dichlorobenzene	PPBv	0.07	0.08	<0.04	<0.04	<0.04	0.08	0.11	0.13	0.09	0.15
Dichlorodifluoromethane	PPBv	1.6	1.6	1.2	0.47	0.43	1.2	1300	70.	0.51	<0.10
1,1-Dichloroethane	PPBv	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.10	<0.04	<0.04	<0.10
1,2-Dichloroethane	PPBv	0.04	<0.04	0.04	<0.04	<0.04	<0.04	<0.10	<0.04	<0.04	<0.10
1,1-Dichloroethylene	PPBv	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.10	<0.04	<0.04	<0.10
cis-1,2-Dichloroethylene	PPBv	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.10	<0.04	<0.04	<0.10
t-1,2-Dichloroethylene	PPBv	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.10	<0.04	<0.04	<0.10
1,2-Dichloropropane	PPBv	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.10	<0.04	<0.04	<0.10
cis-1,3-Dichloropropene	PPBv	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.10	<0.04	<0.04	<0.10
trans-1,3-Dichloropropene	PPBv	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.10	<0.04	<0.04	<0.10
1,2-Dichlorotetrafluoroethane (114)	PPBv	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.10	<0.04	<0.04	<0.10
Ethanol	PPBv	43.	40.	30.	0.89	1.1	16.	3.0	8.6	6.0	6.5
Ethyl Acetate	PPBv	0.24	0.19	0.19	0.05	<0.04	0.12	<0.10	0.05	<0.04	<0.20
Ethylbenzene	PPBv	0.12	0.12	0.11	<0.04	<0.04	1.6	9.1	0.10	1.6	0.99
4-Ethyl Toluene	PPBv	0.05	0.04	<0.04	<0.04	<0.04	0.07	0.11	0.07	0.07	0.12
n-Heptane	PPBv	0.21	0.18	0.25	<0.04	<0.04	0.27	<0.10	0.14	0.12	0.23
Hexachlorobutadiene	PPBv	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.20	<0.07	<0.07	<0.20
Hexane	PPBv	0.37	0.43	0.36	0.09	0.05	0.48	0.18	0.17	0.20	0.63
2-Hexanone	PPBv	0.11	0.13	0.08	<0.04	0.05	3.7	0.51	0.71	0.14	<0.10
Isopropanol	PPBv	6.9	6.4	5.9	0.17	0.19	5.6	2.7	2.8	2.2	0.71
Methyl tert-Butyl Ether (MTBE)	PPBv	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.10	<0.04	<0.04	<0.10
Methylene Chloride	PPBv	0.97	1.1	0.82	0.62	0.19	0.52	0.72	0.28	0.42	1.6
4-Methyl-2-Pentanone (MIBK)	PPBv	0.47	0.45	0.41	<0.04	<0.04	18.	4.8	3.2	0.42	0.11
Propene	PPBv	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.10	<0.04	<0.04	<0.10
Styrene	PPBv	0.07	0.06	0.05	<0.04	<0.04	0.05	<0.10	0.05	0.04	0.13
1,1,2,2-Tetrachloroethane	PPBv	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.10	<0.04	<0.04	<0.10
Tetrachloroethylene	PPBv	<0.04	<0.04	<0.04	<0.04	<0.04	0.18	<0.10	0.08	<0.04	0.24
Tetrahydrofuran	PPBv	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.10	<0.04	<0.04	<0.10
Toluene	PPBv	0.57	0.49	0.60	0.13	0.06	1.1	0.39	0.26	0.48	0.66
1,2,4-Trichlorobenzene	PPBv	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.10	<0.04	<0.04	<0.10
1,1,1-Trichloroethane	PPBv	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.10	0.64	<0.04	<0.10
1,1,2-Trichloroethane	PPBv	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.10	<0.04	<0.04	<0.10
Trichloroethylene	PPBv	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.10	<0.04	<0.04	<0.10
Trichlorofluoromethane (Freon 11)	PPBv	0.26	0.24	0.25	0.20	0.17	0.29	0.28	0.28	0.23	<0.10
1,1,2-Trichloro-1,2,2-Trifluoroethane	PPBv	0.07	0.07	0.07	0.07	0.07	0.06	<0.10	0.07	0.06	<0.10
1,2,4-Trimethylbenzene	PPBv	0.17	0.15	0.12	<0.04	<0.04	0.24	0.34	0.26	0.25	0.33
1,3,5-Trimethylbenzene	PPBv	0.05	0.05	0.04	<0.04	<0.04	0.07	0.12	0.06	0.06	<0.10
Vinyl Acetate	PPBv	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.10	<0.04	<0.04	<0.40
Vinyl Chloride	PPBv	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.10	<0.04	<0.04	<0.10
m/p-Xylene	PPBv	0.37	0.35	0.34	<0.07	<0.07	5.3	29.	0.32	6.1	3.3
o-Xylene	PPBv	0.11	0.11	0.10	<0.04	<0.04	1.9	11.	0.12	2.0	0.78

Notes:
PPBv = Parts per billion per unit volume

FIGURES



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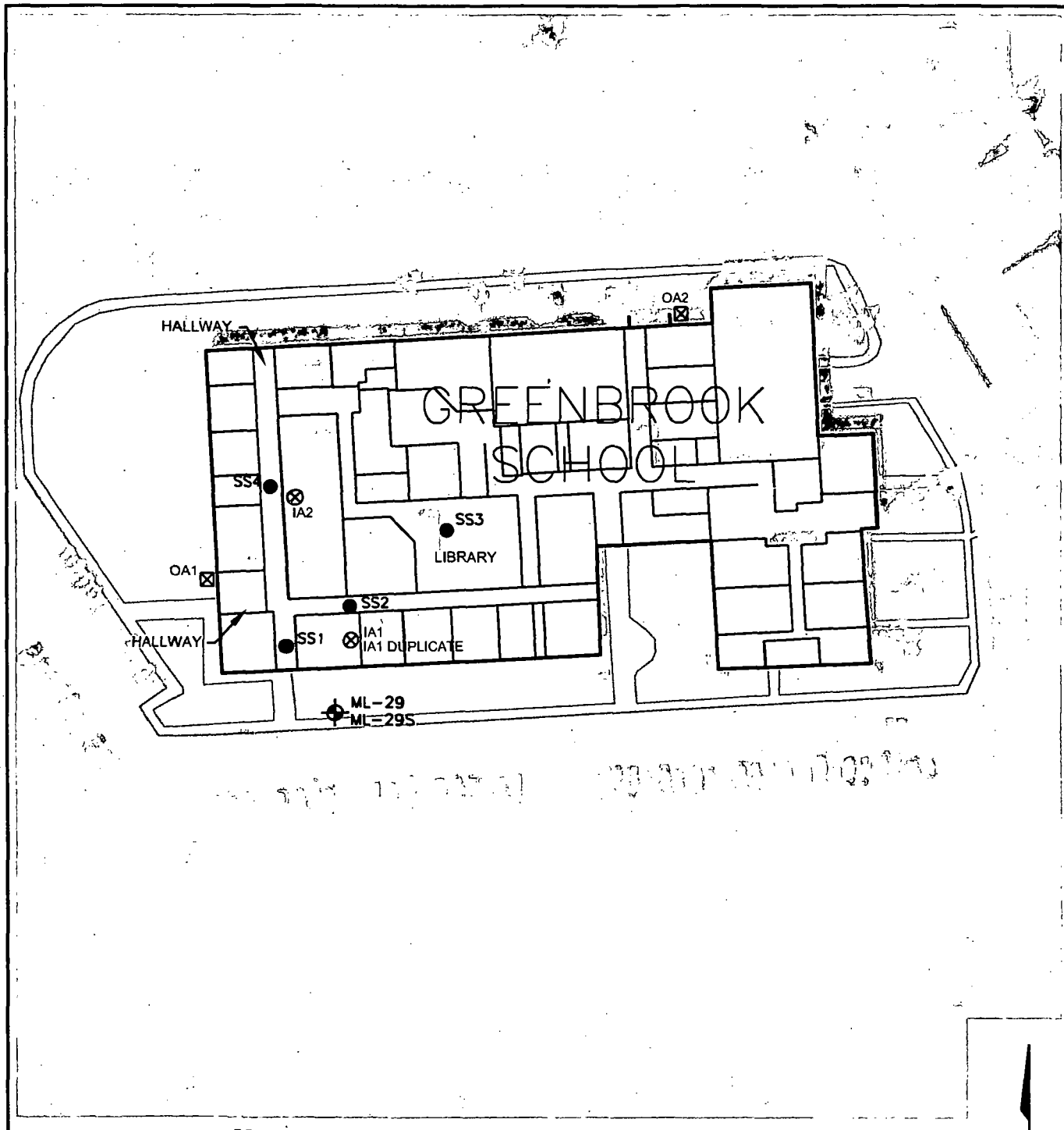
SITE LOCATION MAP DEPICTING INVESTIGATION AREA
GREENBROOK SCHOOL INVESTIGATION

MALLARD LAKE LANDFILL
BFI WASTE SYSTEMS OF NORTH AMERICA
HANOVER PARK, ILLINOIS

Drawn :	KJC	8/27/2009
Checked:	MGR	8/27/2009
Approved:	MGR	8/27/2009
PROJECT NUMBER	13069002	
FIGURE NUMBER	1	

X:\PROJECTS\20070480S\Greenbrook School Area_Site-Location_XS-Index.dwg; 11/18/2009 10:32:32 AM; CALAWAY, JIM L.; STS.stb



● SS1	SUB-SLAB MONITORING LOCATION
⊗ IA1	INSIDE AMBIENT AIR MONITORING LOCATION
⊠ OA1	OUTSIDE AMBIENT AIR MONITORING LOCATION
ML-29 / ML-29S	GAS MONITORING PROBE LOCATIONS

0 80

1" = 80'

N

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GREENBROOK SCHOOL INVESTIGATION
SUB-SLAB & AMBIENT AIR SAMPLE LOCATIONS
APRIL 1, 2009

MALLARD LAKE LANDFILL
BFI WASTE SYSTEMS OF NORTH AMERICA
HANOVER PARK, ILLINOIS

Drawn:	KJC	8/28/09
Checked:	MW	8/28/09
Approved:	MGR	8/28/09
PROJECT NUMBER	13069002	
FIGURE NUMBER	2	

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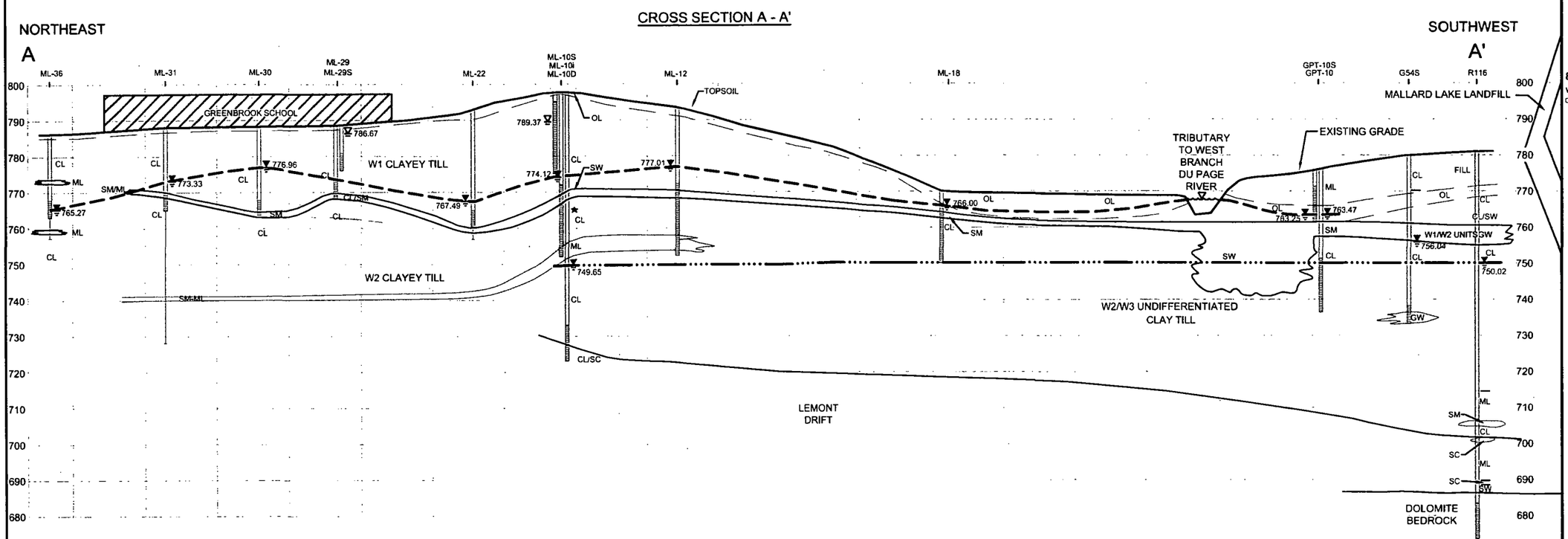
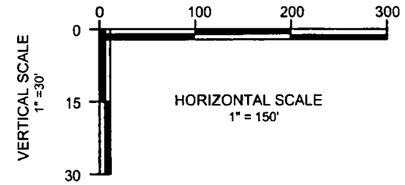
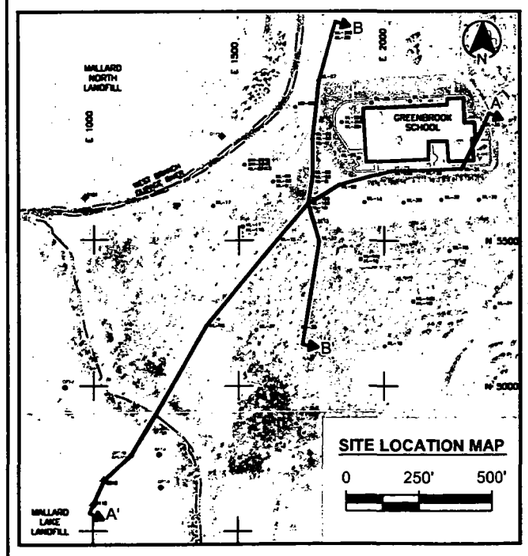
CROSS SECTION A - A'

NORTHEAST — A

SOUTHWEST — A'







LEGEND

- GROUNDWATER ELEVATION
- W1/W2 POTENTIOMETRIC SURFACE
- LEMONT DRIFT POTENTIOMETRIC SURFACE
- METHANE DETECTED IN PROBE BASED ON FEBRUARY 9-10, 2009 MONITORING AT CONCENTRATIONS GREATER THAN 5% LEL.
- W1/W2 UNIT PRESENT UNDER SATURATED CONDITIONS
- 757.4 POTENTIOMETRIC SURFACE ELEVATION

NOTES:

1. GEOLOGIC CONDITIONS HAVE BEEN GENERALIZED. REFER TO BORING LOGS (APPENDIX A), CPT SOUNDINGS (APPENDIX A) AND PROBE CONSTRUCTION DETAILS (APPENDIX B) FOR SELECTED DETAILED DESCRIPTION. REFER TO APPLICATION FOR SIGNIFICANT PERMIT MODIFICATION LOG 3 2009-131 FOR MORE DETAIL
2. PROBE ELEVATIONS AND LOCATIONS SURVEYED BY WEAVER BOOS, INC. IN JUNE 2009. WATER LEVELS AND METHANE CONCENTRATIONS MEASURED ON 8/13/09-8/14/09.WATER LEVEL @PROBE ML-10i from 6/4 /09.
3. STRATIGRAPHIC NOMENCLATURE EXTENDED FROM BOGNER 1988.
4. POTENTIOMETRIC SURFACE ELEVATIONS TAKEN FROM SEALED GAS MONITORING PROBES AND THEREFORE MAY BE AFFECTED BY BAROMETRIC PRESSURE AND GAS EXTRACTION EFFORTS.
5. GRAVELY SAND (SW) AT GPT-10 INFERRED BASED ON SAMPLES FROM GPT-09.
6. WATER LEVEL ELEVATIONS AT G54S AND R116 TAKEN ON APRIL 28 AND 29, 2009. WATER LEVEL AT R116 NOT UTILIZED DUE TO LACK OF INTERCONNECTION WITH W1/W2 UNIT.
7. PROFILE OF GREENBROOK ELEMENTARY SCHOOL PROJECTED ONTO LINE OF SECTION FOR REFERENCE PURPOSES ONLY.

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GREENBROOK SCHOOL INVESTIGATION
CROSS SECTION A-A'

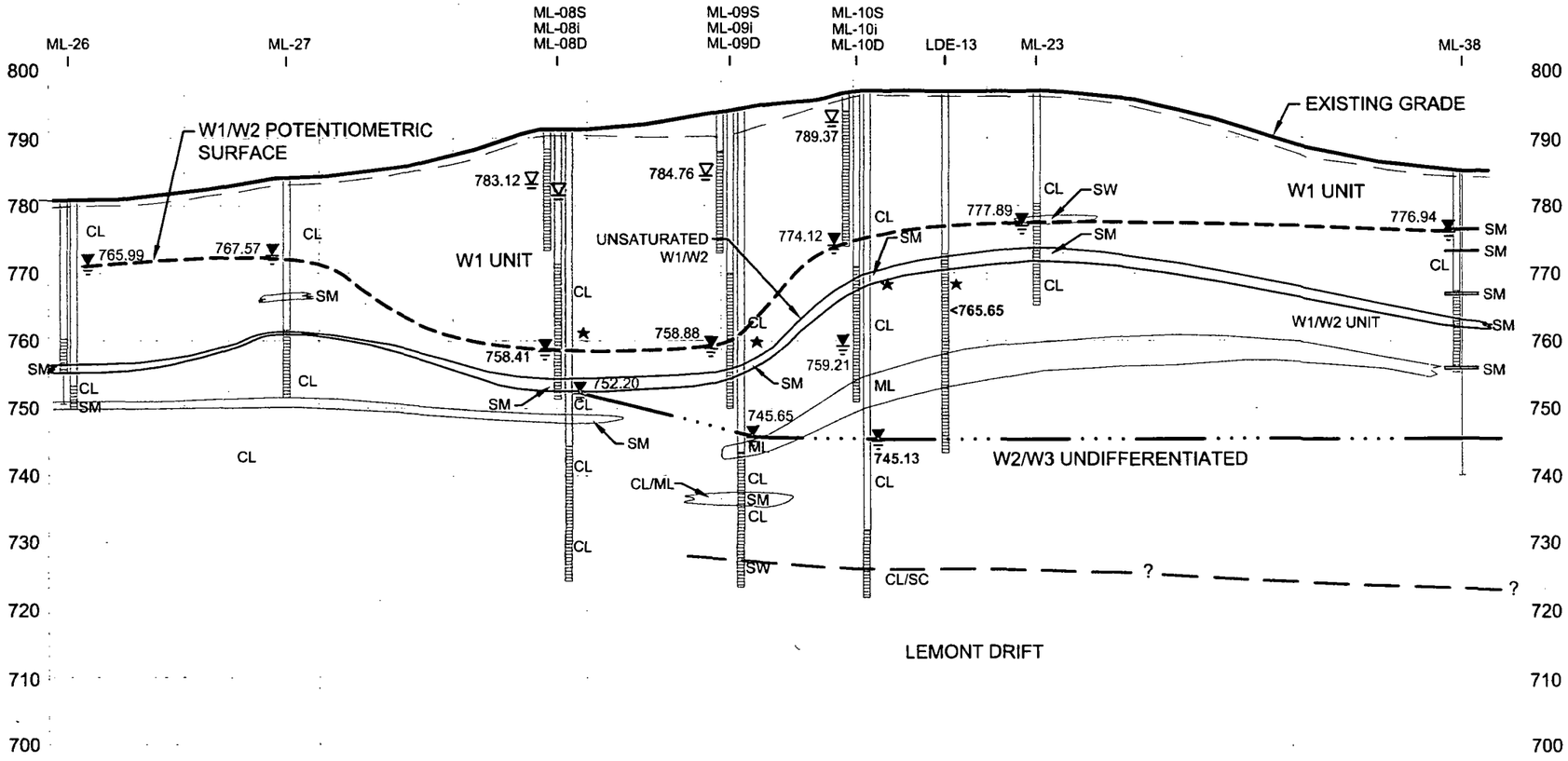
MALLARD LAKE LANDFILL
BFI WASTE SYTEMS OF NORTH AMERICA
HANOVER PARK, ILLINOIS

Drawn :	KJC	9/3/09
Checked:	MW	9/3/09
Approved:	MGR	9/3/09
PROJECT NUMBER	13069002	
FIGURE NUMBER	3	

CROSS SECTION B - B'

NORTH
B

SOUTH
B'



LEGEND

- GROUNDWATER ELEVATION
- W1/W2 POTENTIOMETRIC SURFACE
- LEMONT DRIFT POTENTIOMETRIC SURFACE
- METHANE DETECTED IN PROBE
- W1/W2 UNIT PRESENT UNDER SATURATED CONDITIONS
- 757.4 POTENTIOMETRIC SURFACE ELEVATION

VERTICAL SCALE
1" =20'

HORIZONTAL SCALE
1 = 100'

VERTICAL EXAGGERATION =5X

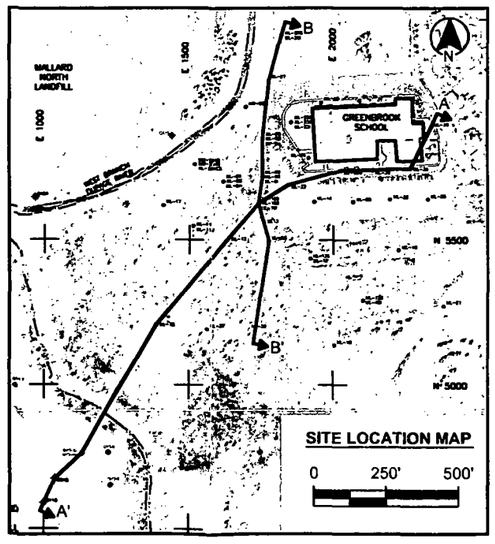
NOTES:

1. GEOLOGIC CONDITIONS HAVE BEEN GENERALIZED. REFER TO BORING LOGS (APPENDIX A), CPT SOUNDINGS (APPENDIX A) AND PROBE CONSTRUCTION DETAILS (APPENDIX B) FOR SELECTED DETAILED DESCRIPTION. REFER TO APPLICATION FOR SIGNIFICANT PERMIT MODIFICATION LOG 3 2009-131 FOR MORE DETAIL

2. PROBE ELEVATIONS AND LOCATIONS SURVEYED BY WEAVER BOOS, INC. IN JUNE 2009. WATER LEVELS AND METHANE CONCENTRATIONS MEASURED ON 8/13/09-8/14/09.WATER LEVEL @PROBE ML-10I from 6/4 /09.

3. STRATIGRAPHIC NOMENCLATURE EXTENDED FROM BOGNER 1988.

4. POTENTIOMETRIC SURFACE ELEVATIONS TAKEN FROM SEALED GAS MONITORING PROBES AND THEREFORE MAY BE AFFECTED BY BAROMETRIC PRESSURE AND GAS EXTRACTION EFFORTS.



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GREENBROOK SCHOOL INVESTIGATION
CROSS SECTION B-B'

MALLARD LAKE LANDFILL
BFI WASTE SYTEMS OF NORTH AMERICA
HANOVER PARK, ILLINOIS

Drawn :	KJC	09/3/2009
Checked:	MW	09/3/2009
Approved:	MGR	09/3/2009
PROJECT NUMBER	13069002	
FIGURE NUMBER	4	

K:\PROJECTS\200704805\Greenbrook School Area\3-4_Sections_AA_BB.dwg; 11/18/2009 10:38:52 AM; CALAWAY, JIM L.; STS.stb